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A

MONOGRAPH OF THE TURDIDÆ,

OR

FAMILY OF THRUSHES.

BY THE LATE

HENRY SEEBOHM,

AUTHOR OF 'SIBERIA IN EUROPE,' 'SIBERIA IN ASIA,' 'CATALOGUE OF THE BIRDS IN THE BRITISH MUSEUM' (VOL. V),
'A HISTORY OF BRITISH BIRDS,' 'THE GEOGRAPHICAL DISTRIBUTION OF THE CHARADRIIDÆ,'
'BIRDS OF THE JAPANESE EMPIRE,' 'THE CLASSIFICATION OF BIRDS,'
'COLOURED FIGURES OF THE EGGS OF BRITISH BIRDS,' ETC.

EDITED AND COMPLETED

(AFTER THE AUTHOR'S DEATH)

BY

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VOLUME II.

LONDON:

HENRY SOTHERAN & CO.,

37 PICCADILLY, W., AND 140 STRAND, W.C.

1902.

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PRINTED BY TAYLOR AND FRANCIS,
RED LION COURT, FLEET STREET.

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MERULA MERULA (*Linn.*).

BLACKBIRD.

Le Merle, Briss. Orn. ii. p. 227 (1760).
Le Merle de France, D'Aubent. Pl. Enl. pls. 2, 555 (1775).
Turdus merula, Linn. Syst. Nat. i. p. 295 (1766).
Blackbird, Lath. Gen. Syn. ii. p. 43 (1783).
Merula nigra, Leach, Syst. Cat. Mamm. & B. Brit. Mus. p. 20 (1816).
Merula merula, Boie, Isis, 1822, p. 552; Seebohm, Cat. Birds Brit. Mus. v. p. 235 (1881).
Sylvia merula, Savi, Orn. Tosc. i. p. 205 (1827).
Merula pinetorum, Brehm, Vög. Deutschl. p. 372 (1831).
Merula truncorum, Brehm, t. c. p. 373 (1831).
Merula alticeps, Brehm, t. c. p. 373 (1831).
Merula carniolica, Brehm, t. c. p. 374 (1831).
Turdus merula, var. *syriacus*, Hempr. & Ehr. Symb. Phys. fol. bb (1833).
Merula vulgaris, Selby, Brit. Orn. i. p. 167 (1833).
Merula major, Brehm, Naumannia, 1855, p. 281.
Turdus menegazzianus, Perini, Ucc. Veron. p. 56 (1858).
Turdus dactylopterus, Bp.; Gray, Hand-l. B. i. p. 255, no. 3714 (1869).
Turdus merula, var. *montana*, Savi; Salvad. in Dresser's B. Eur. ii. p. 99 (1872).

M. nigra (♂) vel brunnea (♀), hujus gutture nigro striato: pedibus saturatè brunneis: rostro flavo.

The Common Blackbird is one of the species peculiar to the Western Palæarctic Region, where it is generally distributed. It is an occasional visitor to the Faeroes, as recorded by Müller, and it is believed to have occurred in Iceland on two occasions—once in 1823, as stated by Preyer, and again in March 1860, according to Mr. Metcalfe. Professor Newton, in noticing these instances, remarks that, even if there has been no mistake in identification, in either case the species can only be regarded as a very exceptional visitor.

The Blackbird is a resident in nearly every part of the British Isles, but a large accession to its numbers takes place in autumn, and in some of the Outer Hebrides and in the Shetlands it is only known to occur on migration. I have also seen on the south coast of England small parties of Blackbirds frequenting the reed-lined dykes of Romney Marsh in the autumn, apparently on migration, which would seem to indicate that many of our home-bred Blackbirds cross the sea, as is the case with the Pied Wagtail and other species. Selby has spoken of the large numbers of Blackbirds which migrate to the coast of Northumberland, and Stevenson says the same with regard to the arrival of the species in Norfolk.

In St. Kilda it does not nest, according to Mr. Dixon (Ibis, 1885, p. 80), and is only found in spring and autumn. The late Mr. Robert Gray published the following interesting note on the present species in his work on the 'Birds of the West of Scotland':—"The Blackbird is common only at times in the outer group of the Hebrides. On Lewis, although a well-known resident, it is

not so numerous as the Thrush; but the great improvements near Stornoway will no doubt attract the species more in future, and it may therefore be expected to increase. On Harris it is likewise resident, and also on North Uist, but in very limited numbers; while on Benbecula it is wholly absent in summer, being only a winter visitant. On Iona and Mull it is a winter bird only; but on some of the other inner islands it is resident. I have found several pairs of Blackbirds on Ailsa Craig; one of these had their nest in a turret-hole of the old castle ruins, nearly halfway towards the summit of the island. I remember, one very hot day in July, hearing a Blackbird sing in a cave there; it had penetrated to the inmost recesses of this dark abode, which must have been a familiar haunt, as on going in to ascertain its extent, I found the bird was able to steer directly out of it, without flitting with side jerks, until it regained the entrance. In some districts of Scotland Blackbirds have of late years multiplied to a great extent; the island of Arran, for example, since the destruction of birds of prey there, has been completely overrun with them. After the breeding-season is over, these birds, in Ayrshire, repair in great numbers to the sea-coast between Girvan and Ballantrae, seeking shelter in hot days under blocks of stone and large flat rocks lying on the beach. On one occasion I turned out eighteen Blackbirds from under a flat rock, resting on broken stones, by poking them with a walking-stick. I have seen Sparrow-Hawks and Merlins (apparently aware of this habit) hunting these rocks at midday, where the Blackbirds were all concealed, but pertinaciously beating about in the neighbourhood, knowing their quarry to be there, though unable in the meantime to dislodge it." In Ireland Mr. R. J. Ussher says that it breeds commonly in every county, but more sparingly in the extreme west, as at Valencia, Achill, the Mullet, and Western Donegal, where is is chiefly known as a winter visitor (Proc. R. Irish Acad. (3) iii. p. 402). In Norway, according to the note given by Professor Collett in Dresser's 'Birds of Europe,' the species is distributed "over the whole of Norway up to the Polar Circle; and the Messrs. Godman found it nesting at Bodö above 67°. In the province of Trondhjem it breeds tolerably numerously, both on the larger islands, such as Hitteren, and in the interior. It is particularly abundant in the coast-districts of Christiansund and Bergen, but is scarcer in the eastern dales, as, for instance, Gudbrandsdal, Valders, and Œsterdal. On the fell-sides it is no longer found in the subalpine region. Individuals passing the winter with us may be seen annually on the coast up to Trondhjemsfiord."

In Sweden, according to Nilsson, it is a rare species in the north, but is found in the south at all seasons of the year, and in Skåne it is even more plentiful in the winter than in the summer. The same author states that the Blackbird was found by Lövenhjelm in Lyksele in Lapland, at the foot of the Issjak Fjeld; but neither Wheelwright nor Sommerfeldt met with it in that country, nor is it mentioned by Dr. Pleske in his work on the Birds of the Kola Peninsula. Von Wright states that it breeds very sparingly in Southern Finland, and he found families of these birds at Drumsö near Helsingfors, and on an island near Borgå, but Mr. Dresser never saw a Blackbird in that country.

In Denmark it is said by Mr. Benyon to be the commonest of the Thrushes that breed in that country; it is in some districts more plentiful than *Turdus musicus*, but is not so generally distributed, most of the old birds migrating in winter.

The young birds first arrive in Heligoland in the autumn migration in October, and the species visits the island till the middle of November, though some of the old ones, driven by want of food from the north, are found up to the end of December. In the spring they return in March, the old males being the first to arrive, followed a week or two later by the females and the young birds of last season, and the migration lasts up to the middle of April (Gätke, 'Heligoland,' Engl. ed. p. 253).

In Germany the Blackbird is a resident, but in Eastern Prussia it is not at all common, according to Mr. Hartert (Ibis, 1892, p. 358). In Poland, Taczanowski records it as a common bird; but in Russia it does not extend far north, and is unknown in the vicinity of St. Petersburg (Sclater, Bull. Brit. Orn. Club, vii. p. xviii).

The Blackbird is found all over France, and in Spain it is, according to Mr. Howard Saunders, an abundant resident. Colonel Irby (Orn. Gibr. p. 35) says that it is very common in Andalucia, and nests near Gibraltar, its numbers being largely increased in winter by the arrival of migrants. In Portugal it is also abundant (Tait, Ibis, 1887, p. 85). In the Pyrenees it is resident, according to Mr. Howard Saunders, but its numbers are greatly augmented during the migration season (Ibis, 1884, p. 369). Colonel Irby found it plentiful near Santander (Ibis, 1883, p. 180), and Mr. H. M. Wallis states that in the Central Pyrenees he noticed it at Eaux-Bonnes, and as far up the Gave-de-Pau as St. Sauveur; at Argelès it was nesting (Ibis, 1895, p. 64). Mr. Eagle Clarke says that he did not observe it within the Delta of the Rhone, where it was apparently an uncommon bird, but he noticed a single pair near the east bank of the Grand Rhône (Ibis, 1895, p. 187).

Throughout Switzerland the Blackbird is common, and it is resident in Italy, where its numbers are increased by the influx of migrants. Here a form occurs with a remarkable rufous female, the *Merula montana* of Savi, which, according to Count Salvadori, is not uncommon in the Maremma of Tuscany. Mr. John Whitehead (Ibis, 1885, p. 37) says that it is very common in Corsica during the winter, a few remaining to breed. He found nests with the full complement of eggs after the middle of May.

In Austria and Hungary it is a resident species (Frivaldsky, Av. Hung. p. 50), as also in Bosnia (Reiser, Vogels. Mus. Sarajevo, p. 65) and Croatia (Brusina, Motr. p. 48). Mr. Reiser (Orn. Balc. ii. p. 49) says that it is found all over Bulgaria and nests, but it is more plentiful in some districts than others, and numbers are occasionally noticed during the autumn migration. In Montenegro it is also universally distributed, but in summer it affects the more alpine districts, along with *Merula alpestris* (Reiser and Führer, Orn. Balc. iv. p. 54).

The Blackbird is resident in Greece, according to Lindermayer. Lord Lilford found a few breeding in Epirus, but it was not very plentiful there. In Southern Russia Von Nordmann states that it is sedentary and breeds, and Pallas records it as common in the Crimea. It is a summer visitor to the Government of Kharkow, according to Prof. Somow (Faun. Orn. Kharkow, p. 157), being a migrant in spring and autumn, and occasionally remaining in the winter. Specimens from Voronesch are in the Seebohm Collection, received from Prof. Menzbier. These examples show a certain similarity to *M. intermedia* of Central Asia.

According to Sabanaeff the common Blackbird does not extend its range to the east of the Ural Mountains, and in Astrakhan Mr. Henke says that it is principally seen on migration and is found very rarely in the winter season (Seebohm, Ibis, 1882, p. 215). In the Caucasus the species is resident, and ranges as high as 7000 feet, as stated by Dr. Radde (Orn. Cauc. pp. 35, 272), who has specimens from Tiflis, Lenkoran, and Borohom. In Persia Dr. W. T. Blanford states that he found the species common in Mazandarán and Ghilán, and it was breeding in the better wooded valleys round Shiraz (East. Persia, ii. p. 157). Mr. W. D. Cumming has also met with it near Fao in January (Sharpe, Ibis, 1891, p. 109). At Trebizond Messrs. Dickson and Ross record this species as common in winter, and Mr. C. G. Danford procured a specimen at Zebil Taurus, in Asia Minor, on the 2nd of February, 1876. To Cyprus the Blackbird is a winter visitant (Lilford, Ibis, 1889, p. 314).

In Palestine it breeds, according to Canon Tristram; and a female bird procured by him, and now in the British Museum, is of grey plumage and resembles the hen of *M. intermedia*. Another

specimen, however, in the Museum collection, obtained by Mr. Barody on Mount Lebanon, is more rufous. If the Palestine bird should ultimately prove to belong to a district, it will have to bear the name of *Merula syriaca* (H. & E.).

Mr. E. Cavendish Taylor has recorded a specimen of the Blackbird from Alexandria (Ibis, 1891, p. 474).

A female specimen obtained by Fraser in Tunis is of the same grey type as the Palestine bird, as is also another female in Mr. Whitaker's collection: the latter specimen is remarkable for its bright yellow bill. Mr. Whitaker (Ibis, 1894, p. 86) says that he found the Blackbird common in the wooded districts north of Feriana, but south of this town he does not remember to have met with it. In Algeria it is also plentiful, and in the province of Constantine it it far more abundant than the Song-Thrush, according to Mr. Dixon, who noticed it from the coast southwards, even to the oases of El Kantara and Biskra (Ibis, 1882, p. 568). In Marocco it was found everywhere common by Capt. Savile Reid (Ibis, 1885, p. 242). Favier says that it is resident near Tangier and very plentiful, nesting three times in the year (Irby, Orn. Gibr. p. 35). In the Canary Islands, writes Mr. Meade-Waldo, it is an abundant resident and breeds, while a good number of migrants also arrive (Ibis, 1889, p. 2, 1893, p. 187). The Hon. Cecil Baring and Mr. Ogilvie Grant also brought a good series of specimens from Madeira, where they procured the species up to 5000 feet. I can perceive no differences between the Blackbirds of Madeira and the Canaries and those from other parts of Western Europe, and specimens from the Azores seem to me to be true *M. merula*. In the latter group Mr. F. D. Godman met with the species on Fayal in February, on St. Michael's in March, and on Flores in May.

The following account of the habits of the Blackbird is extracted from Seebohm's 'History of British Birds':—

"The Blackbird is shy and wary; and his haunts are chosen in situations well adapted to afford him concealment and seclusion. He inhabits the woodlands, plantations, dense hedgerows, gardens, and orchards; but perhaps the places he favours most are the shrubberies and thickets of evergreens. Here, where the laurels, the yews, and the hollies spread their glossy branches, and the ivy festoons almost every forest-tree, the Blackbird is found in greatest abundance, more especially so should lawns or pasture-fields adjoin them. The Blackbird also loves the fences in the fields in summer, where the vegetation is thick and close, and more particularly so if small streams of water wander beside them. The briars and the brambles growing most luxuriantly over the hazel-bushes, with here and there a guelder rose or blackthorn bush, afford a friendly shelter; and the banks clothed densely with herbage, wild hyacinths, primroses, anemones, and fern-tufts afford a fitting site for his nest. But in winter, when these situations lose their verdure, the Blackbird quits them for the seclusion and warmth of the evergreens in the shrubberies and gardens. In spare numbers the Blackbird also frequents the upland districts on those broken tracts of country which occur between the cultivated ground and the moors. Here he frequents the dense thickets of thorn and bramble by the side of the little streams, or, further in the open, the tall holly bushes and gorse clumps occasionally intermingled with a birch or mountain-ash. Wherever the upland farmhouses nestle amongst clumps of trees and are surrounded with a partially neglected garden or orchard, the Blackbird will also be found. In fact he follows man to the wilds as long as sufficient vegetation exists to afford him the seclusion which he loves.

"The Blackbird is especially fond of swampy places and the neighbourhood of water. Wherever streams with well-wooded banks occur, there just as surely Blackbirds will be found; and in the little swampy corners of woods and shrubberies they congregate, sometimes half a dozen birds taking wing together at your approach. Yet the Blackbird is not gregarious; and its presence here in company with its kindred is explained by a common purpose, the search for the food the swamps contain; and each bird flits off solitary as it came.

"Most birds become more or less vociferous at the approach of night, and the Blackbird particularly so. As you wander through the shrubberies in the evening you will often hear a rustling noise amongst the withered leaves under the shrubs and plants. A rustle and then a pause, another more hasty movement, and at last a Blackbird dashes rapidly out, and, uttering his loud harsh cry of alarm, flits off in unsteady flight and hastily disappears again in the nearest cover. As the darkness deepens you have good opportunity of watching their actions when retiring to rest. Conceal yourself under the spreading branches of a dark gloomy yew tree and wait patiently; you will hear their loud cries in all directions, and catch occasional glimpses of their dark forms flitting hither and thither in the gloom: *pink-pink-pink*, *tac-tac-tac*, is heard on every side. Now a bird comes fluttering into the bush under which you are concealed, and his notes startle you by their nearness. A short distance away another answers: another and another in different directions also swells the noisy clamour; and you hear on every side their fluttering wings amongst the evergreens around you. As night comes on and all objects lose outline and distinctness, the cries cease and the birds settle down to rest. A solitary bird will, perhaps, dash past just fresh from the pasture-lands outside; or a frightened bird will utter his alarm-note as he shifts his quarters; yet all else is now silent, save indeed the few last evening notes of the Robin, or, perhaps, the purr of the Goatsucker.

"The Blackbird is with difficulty flushed. It is a skulking bird, and prefers to hop quickly under the hedgerows and brushwood rather than take wing, its motions partaking more of those of a mouse or a rat than of a bird. When compelled to take wing, its flight for a short distance is remarkably unsteady. Turning and twisting from side to side, it dashes quickly away, and, as a rule, just as suddenly and unexpectedly alights in the nearest cover. Across an open place, however, the Blackbird flies quite steadily, and his motion through the air is rapid. Rarely, indeed, does the bird fly at any great height; and should he be compelled to fly far, he seems to prefer skulking along the hedgerows or close to the ground from bush to bush rather than expose himself to view. In the pine-forests at Arcachon, where both the Blackbird and the Song-Thrush winter in some numbers, it was especially noticeable that, whilst the latter were generally seen in the loftiest pines, the former were exclusively found in the underwood, which there consists of furze, broom, and heath, the latter frequently attaining a height of from six to ten feet. As a rule, Blackbirds are extremely sedentary birds, rarely make excursions to any distance, and for weeks, nay, whole seasons, regularly frequent one locality. The Blackbird's flights are almost entirely restricted to those taken from or to its feeding-grounds, should they not be immediately adjoining its haunts. From the shrubberies to the gardens it regularly passes, especially in the early morning and in the dusk of the evening; yet the bird is apparently always in a hurry, and anxious to reach the shelter and seclusion of its haunt as soon as possible.

"There is no reason to think that the Blackbird is migratory in the British Islands. Many birds shift their quarters, either from the colder districts and those parts of the uplands which they haunt in summer, or they quit the open fields when the hedgerows are rendered bare by the wintry blasts; but the bird is not a migrant in the accepted meaning of the word. In severe winters, however, the numbers of our resident birds are perceptibly increased by birds from the continent driven south by stress of weather. On Heligoland, that interesting little island, of all other places the best for observing the annual movements of the bird world, the Blackbird is regularly obtained on spring and autumn migration, clearly demonstrating the fact that the species is, at all events, a migratory one in the northern portions of its range.

"Morning and evening are the times when the Blackbird usually seeks his food; and then you can study its graceful attitudes and sprightly bearing to perfection. In spring and summer it is, for the most part, obtained from the grass-lands—the lawns and pastures near its haunts. At the morning's dawn, or when the sun is well down in the west, you can observe them with ease. One by one you can see them fly rapidly out of the dense shrubbery or wood and alight amongst the grass.

They remain motionless for a few seconds after alighting, with legs at a graceful angle, neck arched, head turned slightly aside, as if they were listening intently, and tail almost at right angles to the body; for these birds, like Ring-Ouzels and Magpies, always elevate their tails upon alighting. They crouch low amongst the herbage, thus presenting an appearance the very model of easy though wary gracefulness and beauty. Few birds are more shy while feeding than the Blackbird; and the instant he is alarmed, he either crouches lower to the ground or retires into the fastnesses whence he came. The Blackbird most frequents the pastures in the morning and evening—when the small white snails occur in largest numbers, and the earthworms come nearer to the surface of the ground or crawl out completely. An animating and interesting sight, indeed, it is to watch him seek his meal. As soon as he alights he pauses a moment, then hops quickly forward and begins to dig for a worm, or snatches a snail from the grass-stem. Then another pause with his head erect, then a few more rapid hops forward, and again he renews the digging motions, drawing the worms from their hiding-places, and, if they be too large to swallow whole, breaking them in pieces. Now he is tugging away at some tenacious worm, now exploring the heaps of manure in search of insects, every now and then pausing in his labours to look warily around. In this manner the birds will advance a hundred yards or more from their cover; but should any one of them utter its alarm-notes, the whole party seek shelter, leaving the pasture in a straggling train, the boldest birds sometimes tarrying until you approach them within gunshot. But all the Blackbird's food is not obtained from the pastures. Lurking amongst the hedgerows are numerous snails inhabiting prettily-marked shells; these the Blackbird breaks by dashing them against a stone or even the hard ground. Insects and grubs are also eaten, and in autumn the berries of the mountain-ash, wild rose, and elder, and also wild fruits, as raspberry, blackberry, and sloe. The Blackbird is also, to some extent, a graminivorous bird, and will feed on grain and various seeds. The bird's love for fruit also makes him but a poor favourite with the gardener, who is ever on the alert to kill him for the cherries, currants, gooseberries, and peas that he pilfers in the season. But the bird's thefts in fruit-time are amply repaid by the amount of undoubted good he does at other times of the year in ridding the garden and the orchard of many of their unwelcome pests. A little watching in the fruit-season is all that is necessary. His good deeds amply repay his little pilferings; and his sprightly form and tuneful song should be far more highly valued than a handful of fruit.

"In autumn the Blackbird is often found in the turnip-fields, seeking the snails and worms which abound so plentifully in the damp loose soil under the broad leaves. In such numbers do the birds congregate that it is no uncommon thing to flush a dozen of them on an acre of turnips. Here they are flushed with difficulty, as they always prefer to run under the leaves rather than to take wing, unless absolutely compelled to do so. In winter the Blackbird's table is the hawthorn, whose berries form its favourite food. At this season of the year it also eats the berries of the misseltoe and the ivy; yet always, when the frost is absent, it frequents the grass-lands, manure-heaps, and little water-courses in search of the various insects on or near them.

"The song of the Blackbird is first heard in the latter part of February, and continues with undiminished power until the end of May, but his notes are on the wane throughout June; and in July his mellow pipe is hushed during the autumnal moult until the advent of the following spring. Though rich and full in tone it possesses little variety; but still the Blackbird's melody is one of the finest of all known birds'; for what it lacks in variation it makes up in compass and richness of tone. Early morning, about sunrise, and after five o'clock in the evening, in the latter part of April, are perhaps the times when the Blackbird's powers of song are heard to best advantage. On the topmost twig of some lofty oak tree, or hid away amongst the foliage of the lower branches, he will sit in the dusk of early morning and warble his wild flute-like song, which floats gently on the still cool air, as he greets the now glowing eastern sky, and later the rising sun. Then again in

the evening he sings as loud and full as in the morning; and you may note that his melody is particularly charming during a passing shower or thunder-storm, even in the middle of the day. Although the Blackbird warbles his delightful strains at all hours of the day, still it is in the morning and evening that the lover of nature can pause and listen to the bird's wild strains in fullest enjoyment; for he seems to strive his best to herald the approaching day and sing its requiem in his choicest tones. The Blackbird's alarm-notes have been previously noticed, and resemble most closely those of the Ring-Ouzel. The call-note of the male bird in the breeding-season resembles the call-note of the Robin—a kind of wild piping cry, indescribably plaintive and beautiful. The female bird is not nearly so noisy as her mate. She is perhaps still more skulking in her habits, and in the breeding-season especially is rarely heard to utter a sound.

"Blackbirds are extremely pugnacious creatures during the mating-season. A little before the period of the vernal equinox it is no uncommon thing to see the male Blackbirds fighting with perfect fury, and chasing each other rapidly through the branches until one comes off victorious and the other slinks silently away. Most birds in the mating-season are more or less pugnacious, although peaceable enough at other times; but the Blackbird may be often seen displaying animosity towards its own species at all seasons of the year. The Blackbird pairs early in the season; but its nest is not found so early as that of the Song-Thrush or the Storm-cock.

"Its chief breeding-haunts are the woods, the shrubberies, pleasure-grounds, gardens, and hedgerows of the highly cultivated districts. The site for the nest is a varied one, embracing at times very singular situations. Preference, however, is given to evergreens. Its nest is placed far up the ivy-covered branches of the tallest trees, or amongst the ground-ivy, in the gloomy yew-trees, snugly buried under the broad-leaved laurels, hid from view in the holly's impenetrable and glossy foliage, and, more rarely, in the dark and frowning branches of the cedars and the pines. A favourite situation for a Blackbird's nest is amongst the ivy growing on walls, especially where a few stray brambles hang over to support it, the materials of the nest being artfully interwoven with them. It is also found pretty frequently on the ground in the banks of wooded ravines, amongst fern and hyacinths, and also in hedges. In all these varied situations, however, the materials of the nest are the same; and often little or no attempt is made to conceal it. Curious sites, indeed, are sometimes chosen. The Blackbird has been known to make its nest on a stone projecting from a wall, with no other support whatever; in another instance under the eaves of a shed; whilst a third was placed amongst the roots of a large tree, far under a bank, in just such a situation as a Wren would select for a nesting-site. The nest passes through three stages before it is completed. It is composed, first, of coarse grasses, amongst which a few twigs are sometimes woven, a little moss, and dry leaves. This somewhat loosely built structure is lined with mud or clay, when it is a difficult matter to distinguish it from an unfinished nest of the Song-Thrush. This mud-formed cavity is finally lined very thickly with finer grasses, admirably arranged, and forming a smooth bed for the eggs. When completed and dry, the nest of the Blackbird is very firm and compact—a proof of which may be seen in the number of their nests which remain intact through the storms of winter, forming refuges and larders for the field-mice. In form the Blackbird's nest is somewhat shallow, and is usually a large, bulky structure. The eggs of the Blackbird are from four to six in number, although this is in some few cases exceeded, for nests have been known to contain eight eggs. They differ considerably in size, form, and colour: some specimens are exceptionally large, others small; some are quite pear-shaped, others almost round. The usual colour is a bright bluish green, spotted, streaked, clouded, and blotched with rich reddish brown and various tints of purple. Some specimens have most of the spots and streaks round the large end of the egg in a zone or band; others are finely blotched; whilst some specimens are so highly marked as to hide all trace of the ground-colour. Varieties of the Blackbird's eggs are occasionally met with very

similar to the eggs of the Starling, pure and spotless. Apropos of these light-coloured eggs, Dixon writes that 'in Derbyshire, for three successive years, a pair of Blackbirds built their nest in a spreading laurel, in exactly the same situation yearly; and each season their eggs were remarkable for being pale blue and spotless. This pair of birds produced during this period some thirty eggs, all similar in colour, thus affording considerable proof that the colour of birds' eggs is to a great extent hereditary. I have known similar instances with the Starling, the Titmouse, and the Robin, where for several seasons the eggs have possessed certain peculiar characters.' The eggs vary from 1·35 to 1 inch in length, and in breadth from ·9 to ·79 inch. The Blackbird usually rears two, and sometimes even three broods in a year, nests containing newly laid eggs not unfrequently being found in July and early in August. The young birds are fed on worms, snails, grubs, and insects; and the parent bird tends them but a short time after they quit the nest. When visiting the nest with food, both male and female birds are extremely cautious; and should they obtain a glimpse of any intruder, they will sometimes fly restlessly about for hours with the food in their beaks rather than betray the site of the nest. Both the male and female bird assist in hatching the eggs and rearing the young; but the female is by far the most frequently found upon the nest; and she conveys the greater part of the food to the young as well. In the rearing-season the male Blackbird sometimes warbles as he flies through the air to and from the nest."

Nestling. General colour above rufous-brown, the head and back streaked with rufescent centres to the feathers, which have blackish margins; lower back, rump, and upper tail-coverts dusky blackish-brown, the latter mesially streaked and broadly edged with rufous; wing-coverts blackish-brown, with distinct triangular spots of rufous, smaller and nearly obsolete on the greater series; primary-coverts, quills, and tail blackish-brown; sides of face and sides of neck brown streaked with rufous; under surface of body dull rufescent, the feathers edged with dusky brown, especially distinct on the breast, where whitish shaft-lines are evident, as they are also on the flank-feathers and under tail-coverts, being very distinct on the latter.

Adult male. General colour above and below black, including the wings and tail: bill orange-yellow; feet and claws dark brown or black; iris hazel; eyelid orange. Total length 10 inches, culmen 1·0, wing 5·05, tail 3·7, tarsus 1·3.

Young males after their first moult can generally be recognized by their black bill, but not invariably, for I have examined specimens killed in the first winter in which the bill is yellow, with the culmen and tomia more or less black. A surer way of distinguishing a young male Blackbird from an old one in the winter plumage is by the brown wings, the primary-coverts and primaries being always dark brown in the immature birds. The black on the under surface of the body is also never so pure, and even in the succeeding spring remains of brown edgings to the breast-feathers may be traced.

In the first winter the young males display great diversity of plumage, and scarcely two individuals are alike, the feathers of the under surface being edged with rufous-brown, which fades to buff, or even to dull white. The throat is often white, streaked with black, and the breast-feathers sometimes show whitish shaft-lines. The bill is sometimes yellow, sometimes black, and often parti-coloured. The black plumage of the first spring is intensified by the abrasion of the pale edgings to the feathers of the under surface, of which, however, some traces can always be distinguished, and often a little patch of light-edged feathers remains, generally on the fore-neck.

The greater or less amount of pale edging on the breast-feathers seems to me to depend on the vigour of the bird, and a very curious specimen is in the British Museum: it was shot by myself at Avington in Hampshire in November, and is apparently a perfectly old male. It had evidently been seized by a cat or a hawk, and could not fly, as the whole of the flight-feathers of

the right wing had been torn out, and a wound inflicted on the chest. This damage was being repaired by a moult, and it is curious to note that the new feathers were those of the young plumage of the first autumn.

Adult female. Differs from the male. Above dark olive-brown; the wing-coverts like the back; the quills sepia-brown, externally washed with dark olive; tail blackish-brown; lores dusky, surmounted with a slight shade of ashy; ear-coverts dusky brown, with narrow whitish shaft-lines; cheeks and throat pale ashy, thickly streaked with broad black centres to the feathers; fore-neck and chest more reddish-brown, shading off into dusky grey on the breast and abdomen and into olive on the flanks, the lower flanks and under tail-coverts being dark ashy brown; the fore-neck and chest spotted with black triangular tips to the feathers, which have obsolete whitish shaft-lines; thighs brown; under wing-coverts and axillaries dull ashy brown; quill-lining paler ashy. Total length 10 inches, culmen 0·95, wing 5·0, tail 3·6, tarsus 1·35.

Among the female Blackbirds there seems to be a greater variation than among the males, and the younger birds in their first winter appear to be more rufous, the black spotting on the throat and breast being very distinct. At the same time it is evident that the female Blackbirds incline generally to a rufous phase, in which the greyish colour of the throat and chest is replaced by rufous.

The older birds become blackish above instead of olive-brown, and a cindery shade pervades the whole of the under surface, the throat alone being greyish-white with black spots and streaks, which become more or less obsolete on the breast, where they are either represented by blackish triangular spots or by black centres to the feathers. The grey of the breast and abdomen is obscured by ashy-white margins after the autumn moult; but these edgings gradually become abraded, leaving the under surface of the body much darker.

The bill is at first dark brown, but in old birds it becomes nearly as yellow as in the males.

The species undoubtedly varies considerably in size, the specimens from Western Europe being smaller than those from Eastern Europe and Central Asia (*M. intermedia*). This will be seen from the following measurements of the wings of the specimens in the British Museum :—

M. merula.

	Males.	Females.
Great Britain	4·8–5·25	4·7–5·05
France	5·1	4·75–4·95
Holland	4·95	...
Heligoland	5·05–5·2	4·9–5·2
Hungary	5·0	4·9
Italy	4·9	...
Portugal	4·8	...
Azores	4·9–5·0	4·5
Madeira	4·9–5·1	4·7–4·9
Canaries	4·8–5·1	...
Tunis	...	4·9
Marocco	5·0	...
Palestine	4·85–4·9	4·8
Asia Minor	...	4·9
Erzeroum	...	4·9
Voronesch	5·3	5·1
Persia	5·05–5·2	...

M. intermedia.

	Males.	Females.
Turkestan	5·45	5·2–5·45
Yarkand	5·25–5·5	5·35–5·55
Aksu	5·5	5·2
Afghanistan	5·15–5·3	4·95–5·0

It will thus be seen that the measurements of the European and Central-Asian Blackbirds overlap, and the grey-plumaged female of the latter is matched by specimens from Tunis and Palestine (*M. syriaca*).

A curious specimen with a claw on the wing is figured in Dresser's ' Birds of Europe.' It is the type of the species called *Merula dactyloptera*, which was supposed to have come from Syria. Count Salvadori has, however (Ibis, 1884, p. 214), discovered a MS. note of the late Marquis Antinori to the effect that the specimen in question was obtained by himself, not in Syria, but near Smyrna in Asia Minor! He sent it home with the name of *Merula unguiculata* attached to it, but he did not consider it to be anything but an abnormal variety of the Common Blackbird.

Count Arrigoni degli Oddi has written some interesting papers on peculiar varieties of the Blackbird found in Italy, wherein white bands are developed on the wings and tails of the birds. He has very kindly sent me the following synopsis of his facts recorded on the subject:—

"I have observed that, independently of locality, there is found in Italy a variety of *Merula merula*, which, especially in the young ones, has the tail and sometimes the wings banded symmetrically with whitish. This anomaly usually disappears in the first year of the bird's life, but it lasts longer when it is observed in the adult ones. I have called it *urofasciatura* and *uropterofasciatura* (i. e. *tail-banded* and *tail-wing-banded*).

"The *uropterofasciatura* presents itself on the wings and tail, and in some cases it is probably a form of albinism and also a modification of the latter, if we admit that the feathers remain unchanged. It is sometimes quite regular and complete; but sometimes we observe instead only the *urofasciatura*, which is the banding of the tail alone. It is partial or imperfect *uropterofasciatura*, because I think that the *urofasciati* specimens at some time of life would be *uropterofasciati*, viz. with the complete development of the anomaly. The difference between the greater or less extension of white or black on certain feathers should be ascribed to variations such as one remarks in every case of abnormality. The amount of space in the tail occupied by the band varies from a third to a half or more. Regarding its situation, the band crosses the base, the middle, or the tip, or it may occupy the centre of the tail and be divided in two by a narrow zone of a darker colour. The colouring may be white, dirty-white, pearly-grey, dark grey, &c.; but this, in my opinion, is of secondary importance, for I think that the zone appears from the fading of the colour and disappears by darkening, so that being white in its fully complete state it assumes other shades during the periods of formation and disappearance. The discoloration of the band may not take place in the same way on all the feathers, but in patches—that is, first on one part, then in the following feather, and so on to the outer ones. In some it occupies the whole tail, in others a very small part only of the latter. The banding on the wings would be marked in species which had wings like those of *Lanius excubitor* and *L. auriculatus*, according as it was more or less developed: it is more visible when the wing is folded, because it only or more particularly occupies the outer webs of the feathers. We have special cases in which we notice how the anomalous colouring of the wings disappears with less rapidity on the secondaries, which assume the band more easily, and we notice how different it is in the primaries.

"The abnormality appears at the age of two months or a little more, disappearing at the epoch of the first moult by the blackening of the light portion of the feathers. The white marking is less seldom seen in adult specimens and then it lasts a long time, and I have observed it for several consecutive years.

"Under microscopical examination the shaft of some of the tail-feathers of birds affected by this abnormality seemed as if the birds were out of health. Taking this fact into account, and that such birds are weaker than ordinary individuals, we must conclude that the abnormal plumage is really the effect of a *retarded and irregular moult*. Their system being weakened, they would fall into an unhealthy condition, and it is certainly very difficult to keep them alive. Albinism is associated with atavic characters in the disposition of the young birds. The position occupied by the whitish band on a regular portion of the plumage seems to me to be explained by atavic phenomena, and one can thus understand the reason of an interesting process. Regarding the appearance of the zones, it seems that the one on the tail comes first, if not at the same time as that on the wing. The band seems to disappear without any influence of moulting, and even sometimes without any partial abrasion of the feathers. For the various positions of the band on the tail what reason can we give? The zone which from its atavic character resembles that of other species may be formed in that part which by the weakness of the bird, or from some other cause, is more liable to change: sometimes the zone is patterned in the centre of the feathers, being margined above and below by a darker colour, as in the Peewit and Golden Eagle. Sometimes, however, the zone occupies a different area by its extension and situation, and it is very probable that in the progression of the darkening of the tail the differences which we have noted with regard to the extension and the position of the zone should be attributed to the difference in the age of the birds, as I have observed with regard to the colours of the latter" *.

The descriptions are taken from the series of birds in the British Museum, and the specimens figured are a pair of adult birds from Heligoland in the Seebohm Collection, the young bird being from Sheffield in the same Collection. [R. B. S.]

* *Cf.* Arrigoni degli Oddi (E.), "Sulla Colorazione a fascie in alcuni individui giovani della *Merula nigra*," Atti R. Accad. Scienze di Padova, vol. iii. disp. iv. (1887), and "Studi sugli Uccelli uropterofasciati," Atti Soc. Ven.-Tr. Sc. Nat. vol. xi. fasc. ii. (1890) con tav.

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MERULA INTERMEDIA, *Richmond.*

CENTRAL-ASIAN BLACKBIRD.

Turdus merula (nec L.), Severtz. Turkest. Jevotn. p. 64 (1873).
Merula vulgaris (nec Selby), Scully, Str. F. iv. p. 139 (1876).
Merula merula (nec L.), Sharpe, Trans. Linn. Soc. (2) Zool. v. part 3, p. 72 (1889).
Merula maxima (nec Seebohm), C. Swinhoe, Ibis, 1882, p. 105; Pleske, Wiss. Result. Przew. Reis. ii. p. 17 (1889); Sharpe, Sci. Results 2nd Yarkand Miss., Aves, p. 91 (1891).
Merula merula maxima (nec Seebohm), Stolzm. Bull. Soc. Nat. Moscou, 1892, p. 402, 1897, p. 74.
Merula merula intermedia, Richmond, Proc. U.S. Nat. Mus. xviii. p. 585 (1895).

M. similis *M. merulæ*, sed paullò major, et fœminâ magis grisescente distinguenda.

The Blackbird of Central Asia has been admitted of late years to be somewhat different from the common *M. merula* of Europe, but most writers, myself included, have naturally supposed that it was identical with the Kashmir Blackbird. Mr. C. W. Richmond has, however, recently thrown a new light on the subject, owing to the rediscovery, by that excellent naturalist Dr. W. L. Abbott, of the adult *M. maxima* in the mountains of Central Kashmir. The two specimens of *M. maxima* obtained by Dr. Abbott so much exceed in their dimensions the Blackbirds of Central Asia, that Mr. Richmond has separated the latter under the name of *Merula merula intermedia*.

Beyond its larger size, the male of the Central-Asian Blackbird presents no difference from the male of the Common Blackbird of Europe, but the female is usually a greyer bird, and on that account I should at once have been willing to recognize *M. intermedia*, but for the fact that Blackbirds having larger dimensions and grey females are found in other parts of the Western Palæarctic Region, and in the same localities with these grey-plumaged females occur specimens which cannot be separated from the hen Blackbirds of other parts of Europe.

In the British Museum the examples of *M. intermedia* tend to confirm Mr. Richmond's characters for the Eastern race of *M. merula*, and he is probably quite correct in his surmise that *M. maxima* of Kashmir will be found to be a distinct resident form peculiar to the higher regions of the last-named country.

The definition of the exact habitat of *M. intermedia*, however, is not so easy, for, as I have pointed out in my article on *M. merula*, grey females are found in North-eastern Africa and Palestine, and the Blackbirds of Eastern Europe are larger, as a rule, than those of the Western part of the Continent. It is therefore quite clear that the question of the races of *M. merula* is not yet settled.

Meanwhile I must recognize Mr. Richmond's name of *M. intermedia* for the Central-Asian Blackbird. Its only known breeding-place is apparently in Turkestan (*vide infrà*). Dr. Scully found the species in Western Turkestan in winter and states that it migrated to the northward in spring. Dr. Abbott's specimens were obtained in the Thian-Shan Mountains in November, and the Seebohm Collection contains examples procured by Przewalski in October and November in the Thian-Shan range and at Aksu, the locality whence came Dr. Abbott's type.

According to Dr. Pleske (Wiss. Result. Przew. Reis. ii. p. 17), Przewalski obtained the species first on his journey to Lob-nor during the first half of September 1876, in the upper reaches of the

Kung and on the River Zanma: in the last-named district he also met with it in May 1877. On the southern slope of the Thian Shan he saw an example in the wooded ravines of the Balgantai-Gol, and he twice procured the species in the valleys of the Lower Tarim in winter. Again he met with it wintering in Gass in November and in the Oasis of Aksu in 1885. In October of the latter year he noticed it in the brush-wood of the Uital ravines, on the southern slope of the Thian-Shan Mountains, so that it appears to spend the summer in the woods of the northern slopes of the latter range and to winter in the lower portions.

During the Second Yarkand Mission, Dr. Stoliczka found the species common near Bora and Yangihissar in November. It was also obtained near Yarkand in November, and both Dr. Stoliczka and Colonel Biddulph met with this Blackbird at Káshgar in January. At Bora the native name was "Karha Shachshák," but near Yarkand Dr. Scully says that it is known as the "Maina." The latter observer says that the Blackbird is common in winter near Káshgar and Yarkand. "It seemed to keep principally among *Eleæagnus* trees and thorn-bushes in the vicinity of unfrozen bits of water. It migrated northwards in spring, repairing to the hills and the country about Marálbáshi, and it seemed to feed principally on berries &c."

In the Seebohm Collection are female birds procured by the late Dr. Severtzoff at Tashkend in September, November, and December; and Severtzoff states (Turkest. Jevotn. p. 64) that it breeds in the north-eastern, north-western, and south-eastern districts of Turkestan, and is also found in winter in these localities, but it is only met with in the south-western part of the country in winter (*cf.* Dresser, Ibis, 1875, p. 332). It breeds in the districts of the larch-woods, apple- and ash-groves of the Karatau and the lower Thian-Shan Mountains to an altitude of 4500 feet, or in some places to 7000 or 8000 feet, as well as in the fir- and birch-woods of the Thian Shan to an altitude of 8500–10,500 feet, or the juniper district. In the lower Thian-Shan Mountains it is found in winter, as also in the cultivated districts, the grassy steppes, and the gardens to 3000 or 4000 feet. Throughout the latter districts it also occurs on migration (*cf.* Dresser, *l. c.*).

Professor Menzbier has recorded the species from the Upper Tarim River (Ibis, 1885, p. 356).

Specimens from Ferghana, procured by Severtzoff in January and February, are in the Seebohm Collection, and Stolzmann mentions that several specimens were obtained at Khokand in January, February, and March, and at Marguelane in October, by Mr. Barey (Bull. Soc. Nat. Moscou, 1897, p. 74). The same naturalist met with the Eastern Blackbird (which Dr. Stolzmann calls *Merula merula maxima*) at Merv in December and at Soultan-Bent in November (Bull. Soc. Imp. Nat. Moscou, 1892, p. 402).

The late Dr. Aitchison, during the Afghan Boundary Delimitation Commission, obtained specimens at Khusan, on the Hari-Rud, on November 22nd, and again at Bala-Murghab on the 14th of December, 1894 (Sharpe, Tr. Linn. Soc. (2) Zool. v. pt. 3, p. 72). Colonel Swinhoe (Ibis, 1882, p. 106) procured many specimens near Kandahar, and says that the species is common in the district in winter.

The male of *M. intermedia* does not offer any characters for separation from *M. merula* beyond its slightly larger size, the wing measuring from 6·2 to 5·5 inches. According to Dr. Stoliczka a male bird from Káshgar had the bill yellow, streaked with black about the base, the feet black, the iris dark brown, and the eyelid yellow: total length 11·4 inches, culmen 1·15, tail 4·5, tarsus 1·4. The female of *M. intermedia* is a much greyer bird than that of *M. merula*: the wing measures from 4·9 to 5·5 inches.

Dr. Stolzmann (Bull. Soc. Nat. Moscou, 1892, p. 402) has already directed attention to the increased size of the Blackbirds of Eastern Europe and the Caucasus, and their gradual approach to the dimensions of the Central-Asian bird, and points out that the specimens from the Caucasus are intermediate. He also draws attention to the fact that the claws are larger in the more eastern birds.

[R. B. S.]

MERULA MAXIMA, *Seebohm*.

KASHMIR BLACKBIRD.

Merula vulgaris (nec Linn.), Jerdon, Ibis, 1872, p. 137.
Merula maxima, Seebohm, Cat. Birds Brit. Mus. v. p. 405 (1881); Oates, Faun. Brit. Ind., Birds, ii. p. 123 (1890, pt.).
Merula merula maxima, Richmond, Proc. U.S. Nat. Mus. xviii. p. 486 (1895).

M. similis *M. merulæ*, sed major: alâ 5·85 poll.

The type of this species is a young bird procured by Jerdon in Kashmir and now in the Tweeddale Collection in the British Museum. The wing in this specimen is 5·85 inches in length.

Seebohm considered the Kashmir Blackbird to be identical with the Blackbird of Yarkand, and in this conclusion he is followed by Mr. Oates (Faun. Brit. Ind., Birds, ii. p. 123), where the range of the species is given as extending to Afghanistan and Central Asia. Mr. Richmond (Proc. U.S. Nat. Mus. xviii. p. 486) records a couple of specimens, procured by Dr. Abbott in Central Kashmir at a height of 11,000 and 12,000 feet, as having a wing of over 5·8 inches, which is larger than that of any specimen from Yarkand or Central Asia.

It would appear, therefore, that a large Blackbird exists in Kashmir, breeding in the high mountains, but I have not enough specimens before me to say more upon the subject. The young bird procured by Dr. Jerdon is certainly unlike the young of any European Blackbird I have seen.

The two specimens procured by Dr. Abbott in July 1891 are described by Mr. Richmond as in very abraded summer plumage. He writes:—"They were doubtless resident and breeding in Central Kashmir. They bear out Mr. Seebohm's original measurements and point to the higher altitudes as the summer home of this form. It is quite probable that this bird does not range very far north of Kashmir, as the birds of Eastern Turkestan are referable to a form intermediate between this one and the common Blackbird of Europe. The Abbott specimens, though much abraded, give the following measurements:—

	Wing. in.	Tail. in.	Tarsus. in.	Exposed culmen. in.
♀ ad.	5·82	5·07	1·40	0·96
♀ ad.	5·89	4·73	40	0·96"

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MERULA MANDARINA, *Bp.*

CHINESE OUZEL.

Turdus sinensis, Cuv. MSS.; Less. Traité, p. 408 (1831).
Turdus mandarinus, Bp. Consp. i. p. 275 (1850).
Merula mandarina, Horsf. & Moore, Cat. B. Mus. E.I. Co. i. p. 196 (1854); Seebohm, Cat. Birds Brit. Mus. v. p. 238 (1881).
Merula sinensis, Swinh. P. Z. S. 1871, p. 367; Ridgw. Proc. U.S. Nat. Mus. iv. p. 322 (1882).

M. pedibus fuscescenti-brunneis vel nigricantibus, minimè flavis: fœminâ vix a mari distinguendâ: notæo gastræoque ferè concoloribus, fuliginoso-nigris.

The Chinese Ouzel is said by Swinhoe to range from Hainan to Shanghai and westwards to Szechuen (P. Z. S. 1871, p. 367), and the series of specimens in the British Museum ranges from Hongkong to Ningpo. There is also an example in the Seebohm Collection said to be from Tientsin, but without any authoritative indication of the collector; and as this locality is far to the north of the range assigned to the species by Swinhoe and Messrs. David and Oustalet, the specimen has been probably incorrectly labelled. Swinhoe expressly says that he did not meet with the species at Pekin (P. Z. S. 1863, p. 281).

In Hainan Swinhoe found the species extremely shy and difficult to approach, and he did not procure a specimen. It was seen, but rarely, near Kiungchow city and about the villages of North-west Hainan, and he also met with it occasionally in the centre of the island (Ibis, 1870, p. 248).

Sir John Murray procured a specimen at Hongkong during the voyage of H.M.S. 'Challenger,' and Swinhoe says that it is a common resident species throughout Southern China from Canton to Shanghai (P. Z. S. 1863, p. 281). Mr. De La Touche records it as an abundant resident about Swatow and throughout the Foochow district (Ibis, 1887, p. 216; 1892, p. 412). Mr. F. W. Styan also says that it is resident throughout the Lower Yangtze Basin (Ibis, 1891, p. 319).

Several specimens obtained by Swinhoe at Ningpo are in the Seebohm Collection.

Mr. De La Touche says that this Ouzel is a favourite cage-bird with the Chinese, and Swinhoe speaks of its sweet song as enlivening the gardens. According to the latter observer, it builds chiefly on the boughs of the banyan (*Ficus nitida*), and makes a nest scarcely distinguishable in aspect from that of the European Blackbird. The Cantonese name for the species is "Woo-yay" (Ibis, 1861, p. 38).

Abbé David says that this Blackbird is sedentary in the southern provinces of China, but he never met with it in the basin of the Hoangho. It frequents by preference the middle of the bamboos cultivated in the neighbourhood of habitations, in the bushes scattered about over the centre of the plain, as well as on the hills, but it never occurs on the high mountains. It has a more beautiful and more varied song than the Blackbird of Europe, but has the same habits as the latter bird (David & Oust. Ois. Chine, p. 148).

Adult male. General colour above and below sooty-black, the wings and tail even deeper black;

sides of face like the crown; under surface of body a little lighter than the upper surface, the under wing-coverts and axillaries being also black; the throat slightly paler and of a reddish-brown colour, broadly, though obscurely, streaked with black: "bill lemon-yellow" (*R. Swinhoe*). Total length 10·5 inches, culmen 1·0, wing 6·5, tail 4·4, tarsus 1·5.

Adult female. Rather browner than the male, especially below: "bill lemon-yellow, with the tip black" (*R. Swinhoe*). Total length 11 inches, culmen 1·0, wing 6·1, tail 4·5, tarsus 1·4.

Young male. Resembles the adult male, but the underparts are somewhat washed with chestnut, the throat being also distinctly rufous, broadly streaked with black.

Nestling. Much browner than the adults, and having obsolete light ashy centres to the feathers of the crown and back; wings and tail blacker; lores, eyebrow, and sides of face dull white, spotted with black; the cheeks, throat, and breast dull white, with blackish spots or bars at the end of the feathers; the abdomen, sides of body, thighs, and under tail-coverts reddish brown, darker brown on the latter.

The adult male described is a bird in the Seebohm Collection from Amoy, obtained in November 1866 by Swinhoe. The female described is one from Ningpo, in the Seebohm Collection, obtained by Swinhoe on the 27th of January, 1873. These specimens have also been figured in the Plate of the species.

[R. B. S.]

MERULA BOULBOUL (*Lath.*).

GREY-WINGED OUZEL.

Boulboul Shrike, Lath. Gen. Syn. Suppl. i. p. 57 (1787).
Lanius boulboul, Lath. Ind. Orn. i. p. 80 (1790).
Turdus pœcilopterus, Vig. P. Z. S. 1831, p. 54.
Merula boulboul, Blyth, J. A. S. Beng. xvi. p. 147 (1847); Seebohm, Cat. Birds Brit. Mus. v. p. 248 (1881); Oates, Faun. Brit. Ind., Birds, ii. p. 130 (1890).
Turdus boulboul, Gray, Hand-l. B. i. p. 255. no. 3700 (1869).

M. nigricans, rostro et pedibus flavis: tectricibus alarum medianis versùs apicem, tectricum majorum secundariorumque pogonio externo, grisescentibus, plagam conspicuam exhibentibus.

This very distinct species of Ouzel inhabits the Himalayas, from the neighbourhood of Murree to Assam and Manipur. It appears to breed throughout its range, and to descend to lower elevations in the cold weather, when it is found sparingly in the North-west Provinces and the Punjab.

Capt. Cock and Colonel C. H. T. Marshall (Str. F. i. p. 353, 1873) state that it breeds all over the Murree Hills from the middle of April till July; and on the Second Yarkand Expedition Dr. Stoliczka obtained several specimens in this district in June and July (Sharpe, Rep. Sci. Res. 2nd Yark. Mission, p. 92, 1891).

Colonel C. H. T. Marshall (Ibis, 1884, p. 413) records it from Chamba, and the late Dr. Aitchison presented a specimen to the British Museum which he procured on the Salt Range in January 1893. Near Simla it is common, as the Hume Collection contains examples shot in June, July, September, October, and November.

Mr. W. E. Brooks (Str. F. iii. p. 237, 1875) observed the species near Masuri, and in the oak-woods beyond Landour, many being seen at Kauriagalia. General G. F. L. Marshall states that he found several nests at altitudes from 7000 feet above the sea at Naini Tal to 4000 feet at Bheem Tal (*cf.* Oates's ed. Hume's Nests and Eggs Ind. B. ii. p. 95). The Hume Collection also has specimens from the Dehra Doon in January.

The Lucknow Museum contains a large series obtained at various places in Kumaun by Mr. George Reid and his native collector, as well as in the Kumaun Tarái (Reid, Cat. B. Lucknow Mus. p. 114). The same museum also has an example from Sháhjahánpur, in the North-west Provinces (Reid, *l. c.*). In the Seebohm Collection is a male bird obtained by the late Mr. Andrew Anderson at Ramghur in Oudh, on the 6th of May, 1875, and said by him to have been "breeding."

Dr. Scully (Str. F. viii. p. 285, 1879) writes:—"The grey-winged Blackbird is common in the valley of Nepal throughout the year, always adhering closely to the forests on the surrounding hills. In winter it descends to the foot of the hills, and is then social, frequenting thick bush-jungle. In summer it is found in tree-forests at elevations of from 7000 to 8000 feet. In May and June it was very common in the Sheopuri Forest, keeping in pairs, and its fine song was constantly heard."

Mr. Mandelli's collectors have obtained specimens in Native Sikhim and in Sikhim proper during nearly every month of the year. One example was also procured by them in the Lower Hills of the Bhutan Dooars in February.

In N.E. Cachar Mr. J. Inglis found this Ouzel rather rare and only met with during the cold weather (*cf.* Hume, Str. F. v. p. 30, 1877). Mr. Stuart Baker says that in Northern Cachar it is not only very common during the cold weather, but a good many stay and nest, though the majority migrate to the higher ranges in the Naga Hills and some to Manipur (J. Bomb. Soc. Nat. Hist. ix. p. 137, 1894). Colonel Godwin-Austen has met with it in the North Cachar Hills at Hungrum and on Hernes Peak, again at Asalu, and in the Naga and Khasia Hills.

In Manipur Mr. Hume noticed the species on the wooded slopes of the Barak Valley in the western hills, but this was the only place that he found it (Str. F. xi. p. 128, 1888). Colonel Godwin-Austen has also procured it at Aimul and Tankung in the Manipur Hills.

The Grey-winged Ouzel is universally admitted to be a fine songster, but Jerdon thinks that it is hardly so good as the Nilghiri Ouzel. It is tolerably common, he says, in the Himalayas, but is rather shy, and does not show itself in the open or in gardens, like its Nilghiri congener (B. Ind. i. p. 525).

The following account of the species is given in Mr. Oates's edition of Mr. Hume's 'Nests and Eggs of Indian Birds,' ii. p. 93, 1890):—"The Grey-winged Ouzel breeds throughout the outer ranges of the Himalayas, at any rate from Darjeeling to Murree, in and about the skirts of forests, from an elevation of say 4000 to 7000 feet. It lays from the end of April to the early part of August, but the great majority lay in May and June.

"The situation of the nest varies: it is sometimes placed on the ground, in some hollow of a massive root, or in a fallen trunk; sometimes on a ledge of rock, and sometimes in a fork of some thick tree of moderate size, at no great elevation from the ground.

"The nests of this species closely resemble those of the Nilghiri Blackbird. There is the same internal wattle-and-dab framework, the same massive external coating of moss and delicate ferns, and the same soft internal lining, in the case of this species most commonly of fine dry grass. The specimens before me are fully $7\frac{1}{2}$ inches in external diameter—beautiful masses of moss, lichen, and dry feathery fern, standing something like 5 inches high, with deep egg-cavities, $3\frac{1}{2}$ inches across by $2\frac{1}{2}$ in depth. As far as I can judge, *M. boulboul* employs less mud in the construction of its nest than the southern allied species; but their general appearance is very similar, though the Himalayan nests seem to be generally rather the lightest, although the largest.

"Four is the normal number of the eggs, but I have taken five.

"From Nepal Mr. Hodgson notes that he 'found a nest on the 6th of June at Jaha-powah containing three fresh eggs; a dull *verditer* green, much obscured by reddish-brown freckles. The nest measured externally 6 inches in diameter, and 2·6 inches in height; the cavity was 1·5 inch in diameter and 1·6 inch in depth. The nest was in a wood, on a thick stump of a cut tree about two feet high, and completely hidden by the new shoots springing up from the stump. The nest was entirely composed of moss, firm and compact, and lined with hair-like fibres.'

"Mr. Gammie says:—'I took a nest of this species out of a large tree within reach of the ground at an elevation of about 4000 feet on the Government Cinchona plantations, Sikhim. This was on the 20th May, and the nest contained three fresh eggs. The nest was a very beautiful, finely woven cup, composed entirely of fine roots, but with a little green moss and a few dead leaves intermingled externally. No mud at all had been used in the construction of the nest. The cavity measured 3·5 inches in diameter and over 2 inches in depth, and was nowhere above an inch in thickness. The eggs were of the usual type: a delicate sea-green ground richly blotched and streaked with red and brownish red, and with a little pale purple intermingled at the larger end, where also the markings are more dense, in fact almost confluent.'

"Later on, he again wrote:—'This Ouzel breeds in the Darjeeling district from May to August, most commonly about the elevation of 5000 feet, near the edges of large forests. It sometimes builds

in forks of trees at no great distance from the ground, but its favourite position is, at the height of 20 or 30 feet, right on the summit of a stump of a Ficus-tree, from which the Bhutias have cut the top, and pollarded for the sake of the leaves for their milch-cows. The nest is kept in its place, and concealed, by the upright shoots springing away from below the stump end, and, usually, the bottom of the nest fits the end of the stem. For better concealment a little loose moss is allowed to hang a short way down the stem. A rather isolated tree is generally chosen, the bird, I suspect, objecting to the drip off lofty trees. In building, a neat compact shell is first made of twigs and moss, then a good coating of mud, and finally a thick lining of fibry roots. Externally it measures about 6 inches across by 3·2 in height; internally the cavity is 3·5 inches in diameter by 2 in depth. The number of eggs is four.'

"Mr. Brooks writes to me on 29th August, 1868:—'Before I left, Mr. Horne sent me two eggs of *Merula boulboul*. They measure 1·33 by ·9 inch and 1·22 by ·91 inch; ground-colour pale greenish, very thickly speckled and mottled all over (almost hiding the ground-colour) with brownish red; the markings quite confluent and darker on the large end. These two eggs are the richest coloured Thrushes' eggs I have ever seen. These eggs were taken at Binsar, 12 miles from Almorah, on the 8th of August. I never found the nest, but Horne found several, the earliest in April. Indeed I myself shot a full-sized young one in June. Horne told me that the nest was sometimes placed on a rock-side, Ring-Ouzel-fashion, and sometimes in low trees, and was composed principally of moss and lined with grasses.'

"From Mahasoo, near Simla, it is recorded by Sir E. C. Buck: 'June 30th. Nest on a branch of a pollard holly, 12 feet from the ground, in fork between branch and trunk, constructed externally of moss and lichen, internally lined with strong dry grass and with a layer of mud below, between external and internal layers.'"

Adult male. General colour above black, including the tail; wings also black, excepting the ends of the median coverts and the outer edges of the greater coverts and inner secondaries, which are lavender-grey, more or less inclining to white externally; entire under surface of body black, the under tail-coverts with ashy-whitish margins and indistinct shaft-streaks; under wing-coverts and lower surface of quills black: "bill orange-red; feet brownish-orange; iris brown; edges of eyelids orange-yellow" (*A. O. Hume*). Total length 10 inches, culmen 1·0, wing 5·65, tail 4·2, tarsus 1·35.

Adult female. Dark olivaceous-brown both above and below; the tips of the median wing-coverts and the greater coverts lighter brown than the back and with paler ends, inclining to whitish near the tips; quills and tail brownish-black, the inner secondaries lighter brown on their outer webs; throat and fore-neck with indications of dusky black streaks; under tail-coverts with pale ashy margins: "bill dark brown, yellow on the edges and gape; feet yellowish-brown; iris brown; edges of eyelids pale yellow" (*A. O. Hume*). Total length 10·5 inches, culmen 1·0, wing 5·5, tail 4·2, tarsus 1·2.

Young male. Black above, with pale buff or whitish shaft-streaks to the feathers of the upper surface; wings and tail as in the adult; under surface of body rich ochraceous-buff, mottled with black edges to the feathers and having pale shaft-streaks; lower breast, abdomen, and under tail-coverts black with white shaft-lines, the feathers of the abdomen mottled with sub-terminal bars of ashy: "bill horny-brown, reddish on the edges; feet dusky reddish-brown" (*W. Davison*).

The male and female birds described are from Sikhim, in the Hume Collection, and the pair figured in the Plate are from Sikhim, in the Seebohm Collection. [R. B. S.]

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MERULA ALBICINCTA (*Royle*).

WHITE-COLLARED OUZEL.

Turdus albocinctus, Royle, Ill. Himal. Bot. p. lxxvii (1839).
Turdus albicollis (nec Vieill.), Royle, *t. c.* p. lxxvii, pl. viii. fig. 3 (1839).
Turdus collaris, Soret, Rev. Zool. 1840, p. 2.
Merula nivicollis, Hodgs. Icon. ined. in Brit. Mus., Passeres, pl. clv. nos. 182, 183; id. in Gray's Zool. Misc. p. 83 (1844).
Merula albocincta, Blyth, J. A. S. Beng. xvi. p. 148 (1847); Seebohm, Cat. Birds Brit. Mus. v. p. 245 (1881).
Turdus albicinctus, Bp. Consp. i. p. 274 (1850).
Merula albicincta, Oates, Faun. Brit. Ind., Birds, ii. p. 127 (1890).

M. rostro et pedibus flavis: notæo nigro, torque collari et interscapulio summo albis: gutture et colli lateribus albis: gastræo reliquo nigro.

This very distinct species of Ouzel is found throughout the Himalayas from Kashmir to Cachar and Manipur.

It is not mentioned in Colonel Unwin's list of the Birds of Kashmir, but there is an adult male specimen from that country in the Hume Collection. Colonel Biddulph and Captain Stackhouse Pinwill have procured specimens near Simla, and the Hume Collection contains examples from the interior of the N.W. Himalayas, from Kotegurh in March, Kotekhaie in February, and Bussahir in November.

In the Hume Collection is a specimen from the hills north of Masuri, and in the Lucknow Museum is also one from the same district, as also from Kota in Kumaon (*cf.* Reid, Cat. Birds Lucknow Mus. p. 114, 1890). General G. F. L. Marshall has found this Ouzel nesting near Naini Tâl, on the top of Mt. Cheena, 8000 feet above the sea (Hume, Nests and Eggs Ind. B. ii. p. 92).

A series of adult and young birds are in the Hodgson Collection from Nepal, showing that it breeds within the province; but Dr. Scully only found the species about the Nepal Valley in winter, and even then at high elevations on the hills, never lower than 7000 feet (Str. F. viii. p. 285, 1879). The late Mr. L. Mandelli obtained specimens in Sikhim, in February and April, and in the Seebohm Collection is one from Darjiling, obtained in June. In Native Sikhim Mr. Mandelli's collectors met with the species in February, March, and April, and young birds were procured in August. Mr. Blanford got specimens on the Chola Range in Sikhim at heights from 11,000 to 13,000 feet, and also at Lachung in Upper Sikhim (J. A. S. Beng. xli. pt. 2, p. 49, 1872).

It has not as yet been obtained in Bhutan or in Assam, but Mr. Stuart Baker says that he noticed one of these Ouzels in N. Cachar. He writes:—"I have only once seen this bird, on a tiny stream running below the village of Ningle, about 3800 feet altitude. I did not shoot it, but it was very distinctly visible as it sat on a small sapling, and I do not think I could have made a mistake in my identification" (J. Bomb. Nat. Hist. Soc. ix. p. 136, 1894). Mr. Hume did not meet with it in Manipur, but a couple of specimens, now in the British Museum, were obtained by Colonel Godwin-Austen at Remba in that State (J. A. S. Beng. xlv. p. 196, 1876).

In a paper on birds' nesting in the Tons Valley, Mr. B. B. Osmaston (J. Bomb. Nat. Hist. Soc. xi. p. 66, 1897) observes:—"No account of the nidification of this Ouzel seems on record, and all that we know of the eggs is from Hume's description of two specimens brought from Native Sikhim in June. This fine Ouzel is fairly common in the Karshu oak-zone from 8000 to 10,000 feet, where its fine mellow-noted song may be heard daily in the spring. I found two nests near Deoban at about 9000 feet elevation on May 23rd and 24th. The first, containing four fresh eggs, was placed in a dense bushy 'Karshu' oak-tree about 10 feet from the ground, and the second, with three slightly set eggs, was on the ground at the root of an old stump in oak-forest. The nests were massive structures, made of moss and lined with fine grass, not unlike those of the Mistle-Thrush. The eggs were very pale blue, mottled all over with reddish-brown, and with some inconspicuous pale grey markings as well. They measured as follows:—

	in.	in.
"Largest egg	1·20	× 0·85
Smallest egg	1·14	× 0·84
Average of five eggs	1·16	× 0·85"

The Tons River where Mr. Osmaston collected is said by him to be "a large branch of the river Jumna, rising in the snowy ranges of the Himalaya, and winding its way southward through Tehri-Garhwal and Jannsar, traversing a forest-clad country from the zone of the juniper and the birch at 13,000 feet to that of the long-leafed pine at 3000 feet."

Dr. Scully writes from Nepal:—"I found this Ouzel common in the Sheopuri Forest in February. It was not social like *M. boulboul*, being always found singly or in pairs. It frequented the moss-covered branches of the trees, or flew up from a bush to the nearest tree on being alarmed. It is rather a noisy bird, and its note in winter is harsh, something like that of *M. atrigularis* when alarmed, but lower and more full" (Str. F. viii. p. 285). In Upper Sikhim Dr. W. T. Blanford says that it appears to haunt the banks of streams, and he found it common in the Rhododendron scrub on the skirts of forest in the Chola Range from 11,000 to 13,000 feet (J. A. S. Beng. xli. pt. 2, p. 49, 1872).

The following notes on the breeding of the species appear in Mr. Oates's edition of Hume's 'Nests and Eggs of Indian Birds,' ii. p. 92 (1890):—

"Colonel G. F. L. Marshall informs us that 'near Naini Tâl this Ouzel is only found on the top of Cheena 8000 feet above the sea, and is rather an early breeder. I found the young just fledged in the beginning of June, but was too late for eggs. Neither of the parent birds that were with the young ones were in the *castanea*-plumage, both had the neck distinctly ringed.'

"Two eggs of this species which, together with one of the parent birds, were brought from Native Sikhim about the end of June, are regular ovals, a little compressed towards the small end, and slightly glossy; the ground-colour is greyish-white, and the eggs are spotted and speckled all over, more densely towards the broad end, with reddish-brown and brownish-red, and a number of underlying markings of purplish-grey; they measure 1·23 by 0·87 and 1·22 by 0·85."

Adult male in breeding-plumage. General colour above glossy black, including the wings and tail; crown of head and sides of face black, separated from the back by a broad white collar, which extends round the hind-neck and over the upper mantle; chin blackish; throat and sides of neck white, joining the white collar of the hind-neck; remainder of under surface of body black from the fore-neck downwards, and including the under wing-coverts and quill-lining; under tail-coverts black, with a white shaft-stripe. Total length 10·5 inches, culmen 1·0, wing 5·7, tail 4·0, tarsus 1·35.

Adult female in breeding-plumage. General colour above reddish-brown; the cap also brown, hoary on the forehead; wings and tail brown; sides of face ashy-brown; throat, sides of neck, and hind-neck ashy-white, so that the collar round the latter is not so distinct as in the male; remainder

of under surface of body rufous-brown, the fore-neck and chest being more decidedly rufous; axillaries and under wing-coverts rufous-brown; under tail-coverts brown, with a broad mesial streak of white. Total length 9 inches, culmen 1·05, wing 5·2, tail 3·35, tarsus 1·3.

Young male. Black, with black wings and tail; the whole of the plumage obscured by rufous edges to the feathers, which have also pale shaft-lines; lores rufous and cheeks rufous-buff, as also the throat and fore-neck, with a broad malar line of black on each side of the throat; under surface of body brownish-black, the centre of the body reddish-buff with blackish bases and sub-terminal bars to the feathers. There is no sign of a white collar on the hind-neck, but a light patch of ochreous-buff appears on the fore-neck.

The male described is from Bussahir, in the Hume Collection; that figured in the Plate is from "Dhakerry," in the Seebohm Collection. This specimen was obtained by the late Andrew Anderson; but where this locality is, I have not been able to discover. The female described and figured is one from Darjiling, in the Seebohm Collection. [R. B. S.]

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MERULA TORQUATA (*Linn.*).

RING-OUZEL.

Le Merle à collier, Briss. Orn. ii. p. 235 (1760); D'Aubent. Pl. Enl. pl. 516.
Turdus torquatus, Linn. Syst. Nat. i. p. 296 (1766); Stejn. Proc. U.S. Nat. Mus. ix. p. 365 (1886).
Le Merle à plastron blanc, Montb. Hist. Nat. Ois. iii. p. 340 (1775).
Ring Ouzel, Lath. Gen. Syn. ii. pt. 1, p. 46 (1783).
Merula torquata, Boie, Isis, 1822, p. 552; Seebohm, Cat. Birds Brit. Mus. v. p. 246 (1881).
Sylvia torquata, Savi, Orn. Tosc. i. p. 206 (1827).
Copsychus torquatus, Kaup, Nat. Syst. p. 157 (1829).
Merula montana, Brehm, Vög. Deutschl. p. 375 (1831).
Merula collaris, Brehm, Vög. Deutschl. p. 376 (1831).
Thoracocincla torquata, Reichenb. Nat. Syst. pl. liii. fig. 12 (1850); Ridgw. Proc. U.S. Nat. Mus. iv. p. 322 (1882).

M. torque præpectorali albo: subtus nigricans, plumis singulis albido marginatis, sed minimè medialiter albo striatis: rostro nigricante, vel brunneo, haud flavicante.

The Ring-Ouzel nests in Northern Europe, but is replaced in the Caucasus by *M. orientalis* and in Central Europe by *Merula alpestris*. On migration *M. torquata* visits Southern Europe, as does also *M. alpestris*, and they are then found in the same localities, but their breeding-ranges are quite distinct.

In Great Britain the Ring-Ouzel nests in the high moorlands, and breeds regularly in Dorsetshire and the western counties, while another favourite haunt is the Peak in Derbyshire. It is said to have "nested in Hampshire, Suffolk, Norfolk, Warwickshire, and similar counties, but as a rule its breeding-places are in the wild and hilly districts of Cornwall, Devon, Somersetshire, the Pennine backbone of England and its spurs; in Wales; and in the greater part of Scotland, including the Orkneys, and most of the islands which present suitable features; to the Shetlands it is comparatively a rare visitor" (Howard Saunders, Man. 2nd ed. p. 15). In Ireland it nests in suitable localities.

In the south of England it is a regular migrant, and was noticed in Hampshire by Gilbert White a hundred years ago. I have myself seen it frequenting the gardens near Brighton on its way south in the autumn, and this portion of the Sussex coast seems to be a favourite resting-place for the species on its southern journey.

The Ring-Ouzel breeds on the mountains of Scandinavia up to the North Cape; and Professor Collett contributes the following note to Mr. Dresser's 'Birds of Europe':—"During the season of migration, it is more or less numerous in the lowlands, but is certainly the least common of our Thrushes. I have observed it in small flocks of about a dozen individuals, but more generally singly. It is found on the fells only, during the summer season, in all southern and eastern portions of the country down to Christiania Stift, and breeds numerously in the birch regions; but it seldom visits the subalpine regions, as at Ringerike, in Krogkleven. Along the west coast and

further to the northwards it breeds at all altitudes above the level of the sea, and is found especially on the islands inside the polar circle. It occurs in East Finmark; but it is uncertain whether it breeds there or not. In spring and autumn it visits the lowlands and remains here and there (as, for instance, at Christiania) through the winter .... In the western part of the country it appears generally to build on the ground, and in the eastern fells in low trees or bushes."

My own experience in Sündalen is that it only occasionally nests on the lower grounds, in severe seasons such as that of 1899, when the snow remained very late on the mountains, and many of the fjeld-nesting birds, such as Mealy Redpolls, Bramblings, and Ring-Ouzels, reared their young in the valleys. The upper birch-woods, where the two former species love to nest, were comparatively deserted by them, and as a consequence they appeared in numbers at lower elevations. The Ring-Ouzel, however, though breeding at lesser heights than in previous years, was not to be driven from his beloved fjelds by a little extra snow, and so its nest was found not only in the valley but also on the snow-line, and it is probable that only after severe winters is the Ring-Ouzel driven to breed away from the alpine zone. Messrs. F. and P. Godman found it nesting in the mountains near Bödo. Mr. Henry Pearson and Mr. E. Bidwell noticed the species in the Porsanger Fjord (Ibis, 1894, p. 228), and in Russian Lapland Mr. Pearson says it was observed in the birch-scrub near his camp, but none were seen inland (Ibis, 1896, p. 207). Dr. Pleske, in his work on the birds of the Kola Peninsula, observes:—"The Ring-Ouzel has been found plentifully in Russian Lapland by Lilljeborg at Schuetzkaja, and Mela appears, on the strength of this record, to have regarded the species as an inhabitant of the Murman coast. Lagus has observed it in Kunsama, and Von Wright between Aavasaksa and the river Tengeliö. In East Finland it has been frequently met with, having been already recorded by Leem and Hammer, and more recently by Schrader, who observed it about harvest-time in the vicinity of the Varanger Fjord. According to Sommerfeldt it occurred only in the summer. The nest was first taken in 1875 by Nordvis on the Varanger Fjord, and Westerlund further records the nesting of the species on the island of Fuglö. The vertical range of the Ring-Ouzel extends to the line of perpetual snow, where it prefers the upper part of the sub-alpine region, where *Betula nana* flourishes, or is found in stony districts sparsely covered with moss."

Seebohm writes as follows:—"As the species is not recorded from Archangel, and Harvie-Brown and I did not meet with it in the valley of the Petchora, we may almost assume that rocks are indispensable to the Ring-Ouzel." The breeding-area of the species appears therefore to be limited almost to the British Islands and Scandinavia, for although, according to Schlegel, a few may breed in Holland, the nesting of the true *M. torquata* in Central Europe is not confirmed, and Mr. Hartert gives me the following note:—"In Germany, according to the observations of the most reliable observers, the Ring-Ouzel is known to occur principally during the autumn migration, especially in September and October. It is more frequently met with in the western districts than in the eastern, and is not so often noticed in spring, *i. e.* March and April. It does not nest anywhere in Germany." To Heligoland and Borkum the species comes as a spring and autumn migrant, and it also passes through Denmark.

In other parts of Europe the Ring-Ouzel is known chiefly as a migrant, and the British Museum has specimens from the Vosges Mountains, Mentone, and Italy. Of its occurrence in the last-named country, Count Arrigoni degli Oddi writes to me:—"It is mostly of rare and irregular appearance in Italy during the cold season; it is more numerous when the winter is severe, and is more generally observed in the northern portions of Italy. It is, however, certainly a resident species in the Piedmontese Alps, as I possess four specimens from Lanzo—three adult birds shot in April and May of 1897, and a very young bird procured on the 1st of August in the same year." In the Sierra Nevada in Spain Mr. Howard Saunders has procured both species of Ring-Ouzel, but *M. torquata* is doubtless

only a migratory visitor, and *M. alpestris* is the resident species which breeds there. *M. torquata* is known as a migrant near Gibraltar, according to Colonel Irby (Orn. Gibr. 2nd ed. p. 36), and it also visits Northern Africa in winter, having been found in Marocco, Tunis, and Algeria.

In Seebohm's 'History of British Birds' is an excellent account of the habits of the Ring-Ouzel, a bird with which he was personally acquainted in England as well as in Scandinavia:—

"When the Redwing and the Fieldfare are on the point of departure from our shores for their northern breeding-haunts, the Ring-Ouzel's bold and defiant cries are first heard, and his song, carried hither and thither over the moorlands by the breeze, sounds wild and sweet as, tempered by distance, it greets our ear as the bird sits wary and watchful on the highest pinnacle of some projecting rock. Impelled by resistless impulse, this handsome Ouzel has again sought the solitudes of the moors for the purpose of rearing its young, arriving towards the end of March or early in April.

"The Ring-Ouzel is a somewhat remarkable bird; for although not the *only* migratory British Thrush, still it is the only Thrush that visits our country for the purpose of rearing its young; and, in addition to this, it is the only Thrush that principally confines itself to the upland wilds. A true bird of the wilderness, it prefers the deepest solitudes that our land affords. Truly, indeed, the Ring-Ouzel's home is a wild and romantic one. You will first make his acquaintance where the heath begins, where the silver birch trees are scattered amongst the rock-fragments, and the gorse bushes and stunted thorns and bracken are the last signs of more lowland vegetation. The scenery gets wilder, but still the bird is your companion; he flits from rock to rock before you, or, by making long detours, returns to the place whence you flushed him, uttering his loud, harsh, and discordant call-notes. The hills of Derbyshire are one of his favourite haunts: almost on the very summit of Kinder Scout, the highest peak of the High Peak, nearly two thousand feet above the sea-level, the Ring-Ouzels rear their young. The plateau on the summit of this wild mountain, the view from which is one of the finest in the north of England, is intersected by deep watercourses, the principal ones worn down to the solid rock, but the greater part of them mere trenches in the peat alone, too wide to jump across, and destitute of the least trace of vegetation. The innumerable islands which lie in this network of 'groughs,' as they are locally called, are covered with heath, bilberry, crowberry, clusterberry, and, in some places, with cranberry, bearberry, and cloudberry. The latter plant is the great feature of the wild Siberian tundras, the 'maroshka' of the Russians, and the 'molteberre' of the Norwegians. But the botanist is not the only one who finds an interest here. Bird-life is on every side; and the handsome 'Torr-Ouzel,' as the peasant lads and herdsmen call him, lives in company with the Red Grouse, the Curlew, the Peewit, and the Golden Plover, which also breed in this wild upland solitude.

"The Ring-Ouzel is a shy and wary bird, rarely allowing the observer to approach it within gunshot, except when its nest is in danger. The bird flits before you, ever at a respectable distance, and, if repeatedly disturbed, will take itself off with strong rapid flight to some place of safety. There is much in the Ring-Ouzel's habits and movements in common with those of the Blackbird,—its garrulousness at nightfall, its method of searching for food, its peculiar elevation of the tail upon alighting, and its shy, restless, and vigilant disposition, all being characteristic of that coal-black chorister. Directly after its arrival on our shores the Ring-Ouzel is sometimes observed in large flocks, not unfrequently consisting of several hundred individuals. They remain gregarious for a few days, frequenting the marshes and swamps before they pair and distribute themselves over the moors. At this season the birds are more vigilant than ever, and, if disturbed, rise like Fieldfares and take themselves off to safer and more secluded quarters.

"The food of the Ring-Ouzel is varied, and is both animal and vegetable. At dawn, or just as the evening's mist is stealing up the mountains, you will not unfrequently see him on the wild pasture-lands of the upland farms, or on the stretches of marshy grass-land, studded with rush-tufts,

on the moor. Here, in a precisely similar manner to the Blackbird, the Ring-Ouzel seeks his food, which consists of the worms and small slugs abounding in the earth and on the blades of grass. Every few moments he hops forward, looks warily around, and then commences digging for his prey, occasionally pausing in his labours with head erect, as if fearful of discovery so far from the friendly cover of the heath. On the moor itself he obtains much of his sustenance. The droppings from the cattle and the sheep that pasture there abound with small beetles and insects, which the bird searches for and captures, just as the Blackbird does on the lowland pastures. Then, too, amongst the wild luxuriant growth of vegetation on the moor, numerous shells are found; and the snails that tenant them are eaten, the bird breaking the shells, just like the Thrush or Blackbird, on some convenient stone or rock. The Ring-Ouzel is also passionately fond of fruits and berries; indeed, from July to the time of his departure for the south, these form his favourite fare. The wild berries of the moorland, the billberry, cranberry, clusterberry, and other fruits, are eaten, as are also the berries of the mountain-ash. The gardens near the Ring-Onzel's haunts are also visited and plundered, all the smaller fruits being eaten, and also the plums and cherries. Ivy-berries, elder-berries, and the luscious fruit of the bramble are also part of the bird's autumn food; and the vineyards of France and Spain are visited on the bird's passage south for the sake of the dainty fare they afford.

"Soon after their arrival at their breeding-grounds the male Ring-Ouzels are heard singing in all directions, and, by exercising a little caution, you may get within a few yards of the bird and thus observe him closely. Sometimes he is perched on the rocky walls that there do duty for hedges; sometimes he is sitting on a tuft of heather, or on a gorse bush, or on the branches of some silver birch or mountain-ash, yet, perhaps, most frequently of all on the summit of a grey boulder. Monotonous as is the song of the Ring-Ouzel, still its loud tones and the bold bearing of the bird itself fully harmonize with the wild surroundings. You may often see him perched on some storm-riven tree growing out of the grey rocks, where, with his white breast glistening in the sun, he sits motionless and pours forth his wild notes. His song resembles in part that of the Starling, the Blackbird, and the Song-Thrush. The bird, after several piping notes, utters a few harsh tones, as if in mockery of his own performance, probably a minute passing between each snatch of song. If you alarm him, his wild notes cease at once, and, with his wild cries echoing in the rocks around, he either drops down into the heath or flies away to a more secluded resting-place. The claims of the Ring-Ouzel to the rank of a first-rate songster may be disputed, and his musical powers be unfavourably compared with those of the Song-Thrush or the Blackbird; still there is a wild freedom in them which gives them a peculiar charm, and the wild nature of the surrounding landscape is also much enhanced in beauty by a song as clear and melodious in tone as the scenery around is grand and impressive. If it be the surroundings alone that gain the Ring-Ouzel his musical reputation, then most surely it is the shaded dells and wooded copses that bring the Song-Thrush's music and the Blackbird's trills into such high repute.

"The call-notes of the Ring-Ouzel are somewhat varied. Sometimes they are as low and musical as a Wheatear's (call-notes to each other, in fact); sometimes the note is a piping cry, apparently confined to the male bird alone, with which he speaks to his mate. But the alarm-note is a sharp *tac-tac-tac*, *tac-tac-tac*, repeated more frequently and loudly should you happen to be in the neighbourhood of the nest.

"The Ring-Ouzel very probably pairs annually, soon after its arrival at its breeding-grounds; and a week or so later the birds are engaged in the duties of the season—towards the end of April; yet eggs can be obtained throughout the whole of May and even till July, although these may be the eggs of birds whose first clutch was destroyed. The nest of the Ring-Ouzel is generally placed on the ground, in a hollow in the midst of the ling, which effectually conceals it. Occasionally it will

be found in a bush or stunted tree, but never at any great elevation. In the heather on an embankment, where the soil has given way and left an abrupt edge, is a favourite place. Wherever there is a steep bank covered with high heath, whether it be sloping down to a stream or an old road, you may almost safely calculate on finding a nest every few hundred yards or so, always placed in the shelter of the highest heather (a foot high or more). Sometimes holes in the rock itself are chosen, where a few plants of heath have gained a footing and almost completely shelter the nest from view. Like the nests of all the Thrushes, that of the Ring-Ouzel undergoes three distinct stages before completion, and is always well and compactly constructed. It is made of coarse grass, with perhaps a few twigs of heather to bind the materials together; and a few withered leaves are sometimes added. This grass-formed nest is then lined with mud or clay from the neighbouring bogs or stream-banks. At this stage the nest is remarkably deep; but the thick lining of fine grass which is now added brings the nest to more even proportions. When examining the nest of this bird, its close resemblance to that of the Blackbird will be noticed. Indeed it would be almost impossible to discriminate between them, were we not aware that the Blackbird does not haunt the wild open moor. In the districts where the habitats of these two birds adjoin (the boundary of cultivation and the wild), nothing but a sight of the parent birds can make identification sure.

"The Ring-Ouzel lays four or five finely-marked eggs, bluish green in ground-colour, boldly and richly blotched with reddish brown, and sometimes streaked with dark brown. One variety is very elongated and very pale in ground-colour, the markings being represented by small specks, with a few splashes on the larger end. A second is almost round, intense bluish green in ground-colour, boldly yet sparingly blotched with surface-markings of purplish brown and pale dashes of purple. A third is brownish green in ground-colour, blotched, clouded, and spotted with pale reddish brown and light dashes of purple; while a fourth is similar in ground-colour, but has the brown markings chiefly on the larger end of the egg, where they form a broad zone, and is also streaked with dark wavy lines of brown. So closely do the eggs of this bird resemble those of the Blackbird and the Fieldfare, that, were a series of the eggs of these three birds mixed promiscuously, it would be absolutely impossible to separate all of them correctly. Nevertheless, on an average, the Ring-Ouzel's eggs have the ground-colour clearer, and are more boldly and richly marked, than those of the Blackbird. They vary in length from 1·35 to 1·08 inch, and in breadth from 0·9 to 0·78 inch.

"No birds defend their eggs or young with more matchless courage than the Ring-Ouzel. Approach their treasure, and, although you have no knowledge of its whereabouts, you speedily know that you are on sacred ground, or, more plainly speaking, on the nesting-site of this bird of the moor. *Something* sweeps suddenly round your head, probably brushing your face. You look round; and there the Ring-Ouzel, perched close at hand, is eying you wrathfully, and ready to do battle, despite the odds, for the protection of her abode. Move, and the attack is renewed, this time with loud and dissonant cries that wake the solitudes of the barren moor around. Undauntedly the birds fly round you, pause for a moment on some mass of rock, or reel and tumble on the ground to decoy you away. As you approach still closer, the anxiety of the female, if possible, increases; her cries, with those of her mate, disturb the birds around: the Red Grouse, startled, skims over the shoulder of the hill to find solitude; the Moor-Pipit chirps anxiously by; and the gay little Stonechat flits uneasily from bush to bush. So long as you tarry near their treasure the birds will accompany you, and, by using every artifice, endeavour to allure or drive you away from its vicinity. Even when the nest is but half built, the birds display remarkable attachment to it, as is also the case with the Chaffinch; and the same motions are gone through as though it contained eggs or young birds.

"Upon leaving the nest the young birds are soon abandoned by their parents, and fly about singly or in little parties in search of food."

Adult male. General colour above brownish-black, the wing-coverts like the back, with a narrow hoary-white fringe to the median series, a trifle more distinct on the greater coverts and the primary-coverts; quills dark brown, with a narrow fringe of hoary-white on the primaries, a little more distinct on the secondaries, the innermost of which are uniform like the back; tail blackish-brown; sides of face, throat, and under surface of body brownish-black, with a broad white collar across the fore-neck; the breast-feathers showing remains of narrow white margins, a trifle more distinct on the abdomen and under tail-coverts, but with no indications of white centres to the feathers beyond an occasional pale shaft-stripe; under wing-coverts and axillaries brown with white margins, some of the lower coverts mottled with white; quills sepia-brown below, shaded with ashy along the inner webs. Total length 10·5 inches, culmen 0·9, wing 5·75, tail 4·2, tarsus 1·35.

Adult female. Much browner than the male, with the wings and tail also browner; the white edgings to the coverts and quills distinctly indicated; under surface of body browner than in the male and more mottled, with the feathers of the throat, breast, and abdomen edged with whitish, the feathers with greyish-white bases, and the under tail-coverts showing narrow white shaft-streaks; the white band on the fore-neck feebly indicated, and almost obscured by the brown edges to the feathers; under wing-coverts for the most part white, freckled with brown mottlings; axillaries brown, edged and mottled with white. Total length 10·5 inches, culmen 1·0, wing 5·65, tail 4·0, tarsus 1·3.

Adult male in winter plumage. Differs very little from the summer plumage, and shows a distinct white collar on the fore-neck, and the same amount of white edging to the feathers of the wing. The entire upper surface, however, exhibits a narrow margin of pale brown to the feathers, and the white edgings to the feathers of the underparts are more distinct.

The young male after its first autumn moult is not so black as the adult birds, and has the feathers of the upper surface distinctly edged with brown, and the feathers of the under surface are plainly margined with white, but show no white centres to the feathers. The white neck-collar is entirely obscured by a brown shade.

The description of the adult male is taken from a specimen in the Seebohm Collection procured in Heligoland in May. This specimen is also figured in the Plate. The adult female and young described are Norwegian specimens in the Salvin-Godman Collection. The female figured is from France, and the nestling is from Derbyshire, both being in the Seebohm Collection.

[R. B. S.]

MERULA ORIENTALIS, *Seebohm*.

CAUCASIAN RING-OUZEL.

Turdus torquatus (nec Linn.), Radde, Orn. Cauc. p. 270 (1884).
Merula torquata orientalis, Seebohm, Ibis, 1888, p. 311.

M. similis *M. torquato*, et gastræi plumis minimè medialiter albis, sed alâ conspicuè albo notatâ, marginibus tectricum albis latissimis: subcaudalibus nigris, angustè albido medialiter striolatis.

The Ring-Ouzel of the Caucasus was separated by the late Mr. Seebohm on account of the greater amount of white on the wing, and the two typical specimens in his collection from Kislovodsk show this character to be extremely well marked.

According to Professor Gustav Radde the species is found in the region of *Rhododendron caucasicum* up to 10,000 feet and in the pine-woods. It is a partial migrant, descending to the valleys in winter and returning to the uplands in March. It is usually seen in pairs and is not common.

It is doubtless this Ring-Ouzel which also occurs on the mountains of Persia, where Dr. W. T. Blanford met with it at a considerable height on the Elburz Mountains, and where he thinks it must breed in considerable numbers (Zool. East. Persia, ii. p. 158).

In habits the Caucasian Ring-Ouzel resembles the true *M. torquata*; it does not nest in trees, but on the ground and under rhododendron bushes. Prof. Radde also states that he found a nest in the cleft of a rock.

Adult male. Similar to *M. torquata*, and not having white centres to the feathers as in *M. alpestris*, but having much more white on the wing. Not only are the margins of the wing-coverts purer white and broader, but they extend up the whole margin of the greater coverts and constitute a broad border instead of a narrow fringe near the ends of the coverts. The feathers of the under surface are narrowly edged with white, and the under tail-coverts show a distinct white shaft-stripe. Total length 10·5 inches, culmen 0·9, wing 5·5, tail 4·0, tarsus 1·3.

The description is taken from the typical specimen in the British Museum. [R. B. S.]

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MERULA ALPESTRIS, *Brehm*.

ALPINE RING-OUZEL.

Sylvia torquata, pt., Savi, Orn. Tosc. i. p. 206 (1827).
Merula alpestris, C. L. Brehm, Isis, 1828, p. 1281; id. Vög. Deutschl. p. 377 (1831); Stejn. Pr. U.S. Nat. Mus. ix. pp. 365–373 (1886); Seebohm, Ibis, 1889, p. 309; Salvad. Boll. Mus. Zool. Torino, viii. no. 152, Mar. (1893).

The plate of *Merula alpestris* (Pl. LXXXV.) will appear in a succeeding Part.

that twenty-five years ago no ornithologist in this country treated the manifold species of the old Pastor with the consideration which some of them apparently deserve, and the following strictures of Dr. Stejneger are certainly in the present instance well merited:—"It has been the unfortunate fashion to sneer at the species and subspecies of Brehm, and the simple fact that a name was established by him has been sufficient reason to ignore it altogether and to put it into the synonymy without investigation. This is not only injustice to Brehm's honest labour and his extreme power of discrimination, but it has resulted in extreme injury to science. In the present case, for instance, I think I am in a position to prove that Brehm was correct, and that there exist two distinct species of Ring-Thrushes in Europe, notwithstanding the fact that hardly a single European ornithologist of the present generation even dreams of it."

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Turdus torquatus (nec Linn.), Naum. Vög. Deutschl. vi. p. 5 (1833), xiii. p. 363, Taf. 361. fig. 3 (1847–48).
Merula vociferans, Brehm, Naum. 1855, p. 281; id. J. f. O. 1856, p. 446.
Merula maculata, Brehm, Naum. 1855, p. 281; id. J. f. O. 1856, p. 446.
Merula insignis, Brehm, J. f. O. 1856, p. 446.
Merula torquata, pt. (nec Linn.), Bettoni, Stor. Ucc. nidif. Lomb., Turdidæ, gen. 514 (1865).
Turdus alpestris, Stejn. Proc. U.S. Nat. Mus. ix. p. 255 (1886).
Merula torquata, var. *alpestris*, Tschusi, MT. orn. Ver. Wien, xii. p. 70 (1888).
Merula torquata alpestris, Seebohm, Ibis, 1888, p. 311.
Turdus torquatus alpestris, Prázàk, MT. orn. Ver. Wien, xvii. p. 68 (1893).

M. pedibus saturatè brunneis, nec flavicantibus: notæo gastræoque nigris, torque præpectorali albo conspicuo: plumis gastræi singulis medialiter albis: subcaudalibus conspicuè albo medialiter striatis: rostro flavo.

The fact that three species of Ring-Ouzel are found in Europe has only recently been recognized, although in 1872, in writing the history of *Turdus torquatus* in the 'Birds of Europe,' I was unable to account for some of the phases of plumage in that species, and at least two of the birds figured are now said by Mr. Dresser to belong to *M. alpestris*. The material at my disposal, however, was not sufficient at that period for me to confirm the presence even of a second species in Europe. To Dr. L. Stejneger belongs the credit of having re-established *Merula alpestris* of Brehm as a distinct species from the Common Ring-Ouzel, *M. torquata* (Linnæus). In the 9th volume of the 'Proceedings of the U.S. National Museum' (pp. 365–373) he comments on the description and figure (pl. 15) in the 'Birds of Europe' and justly criticizes the fact that I had not seen that the bird which puzzled me was referable to Brehm's *M. alpestris*; but, as I have said before, the series at my disposal was insufficient for the correct identification of the Central-European species. It is also equally certain that twenty-five years ago no ornithologist in this country treated the manifold species of the old Pastor with the consideration which some of them apparently deserve, and the following strictures of Dr. Stejneger are certainly in the present instance well merited:—"It has been the unfortunate fashion to sneer at the species and subspecies of Brehm, and the simple fact that a name was established by him has been sufficient reason to ignore it altogether and to put it into the synonymy without investigation. This is not only injustice to Brehm's honest labour and his extreme power of discrimination, but it has resulted in extreme injury to science. In the present case, for instance, I think I am in a position to prove that Brehm was correct, and that there exist two distinct species of Ring-Thrushes in Europe, notwithstanding the fact that hardly a single European ornithologist of the present generation even dreams of it."

Dr. Stejneger gives a translation of the article in which Brehm sets forth the differences between his *Merula alpestris* and the true *M. torquata*, and with the series now before me in the British Museum there cannot be a shadow of doubt that the two species are quite distinct; while agreeing with the strictures which Dr. Stejneger passes upon European ornithologists for their neglect of Brehm's genius, I would add that, if he had as clearly defined the characters of all his supposed species as he has done those of the two Ring-Ouzels, there would have been less ignorance in ornithological circles as to the distinction of the races of birds to which he gave native names. Looking at the series of *Merula torquata* and *M. alpestris* in the Tring Museum, where, thanks to the forethought of the Hon. Walter Rothschild, the Brehm Collection has been rescued from decay and made available for scientific study, the differences are so apparent between the two forms that I could not possibly have overlooked them had I had such material before me in 1872.

Merula alpestris is a bird of the alpine regions of Central and Southern Europe, in which districts it breeds and migrates southwards apparently within a limited area, but it is by no means such a migrant as the Northern Ring-Ouzel (*M. torquata*). The latter bird passes through the countries where *M. alpestris* is resident, so that in many countries of Europe both species can be procured, but the breeding-range of the two birds is quite distinct and is well defined.

My friend Mr. Ernst Hartert has examined with me the specimens of Ring-Ouzels in the Brehm Collection at Tring, and has given me the following notes on the distribution of the species in Germany. He writes:—"*Merula torquata alpestris* of C. L. Brehm breeds throughout the Alps, Styria, Carinthia, and in the mountains of Hungary, as also on the Riesengebirge. The Brehm Collection contains adult specimens shot from April to July on the Rechberg, Mount Obie, and Altenberg in Carinthia, and there are nestlings from Gartein and Mt. Obie. There are no specimens from the Riesengebirge in the Brehm Collection and I have never examined skins from there, but there can be no doubt that the form which breeds there rather frequently (according to Kollibay and others) is *M. t. alpestris* and not *M. t. torquata*. It certainly does *not* breed in the Harz, nor do I think it breeds on the Feldberg in the Taunus near Frankfurt. I have twice been through the woods around the Feldberg with the special object of finding it, but failed on each occasion; nor do I think that it is at all likely that it breeds there, for the elevations that it occupies on the Riesengebirge are higher than the altitude of Feldberg. There is only one record of its having been seen there, but the birds were most likely the true northern *M. torquata torquata* on passage. There is also no absolute proof of its breeding in the Thüringer Wald, for Brehm only received the true *torquata* on passage from there. Specimens having been, or said to have been, seen later in May are no proof of a bird's actual breeding in a locality."

In Transylvania Messrs. Danford and Harvie-Brown found it common everywhere, and to some extent migratory. Herr Buda Ádám says that it nests among the pines, but he has never found them breeding in the low country. He saw them in the oak-woods at Sztána, near Klausenburg, on the 10th of June. Mr. Dresser publishes the following letter addressed to him by Mr. Danford from Hatszeg in Hungary:—"I have just come down from the mountains, and the Ring-Ouzels are still (Oct. 16) there, feeding among the juniper-bushes above the pine-woods. They come to the low country in the early spring and soon go up the hills, where they take up their quarters among the pines at an elevation of from 3000 to 5000 feet. Where they go in winter I do not know, but I never see them at that season, either high up or low down. They are very numerous, being quite the characteristic bird of our woods."

It is doubtless *M. alpestris* which nests in Switzerland and the Pyrenees. Dr. Victor Fatio and Dr. Studer, in their list of the birds of the former country, state that the Ring-Ouzel nests throughout the whole chain of the Alps and in the mountains of the Jura, descending in winter to the valleys, but being very seldom seen in the plains (Cat. distr. Ois. de la Suisse, p. 27, 1892). It

must also be *M. alpestris* which is the resident species in the Pyrenees and in the Sierra Nevada of Southern Spain, whence Mr. Howard Saunders has received the nest and eggs, though *M. torquata* is also a migrant through France and Spain. Seebohm believed that the latter species was the resident bird of the Vosges, whence the only specimen in the British Museum certainly belongs to *M. torquata*.

Mr. Howard Saunders (Ibis, 1891, p. 162) observes:—"It was fairly plentiful in the Jura, where some nests were still being built on the 23rd of May, when a few already contained young birds, and I saw a brood on the wing by June 2nd. The nest is placed on the branch of a spruce—generally one which is thickly hung with moss and lichen—and near the stem; seldom as low down as 15 feet, while often 40 feet or more from the ground—very different from the lowly positions affected by the Ring-Ouzel in the British Islands. The adult male attracts attention by sitting on the top of a tall fir and uttering vigorously his scolding *tett, tett, tett*. The bill in this mountain race is decidedly yellower than in average British examples, but much paler than the orange colour of the Blackbird. In autumn the Ring-Ouzel may be seen on the rowan-trees, and among the vineyards by the lakes, until the end of October."

Mr. H. M. Wallis says that he met with Ring-Ouzels at the edge of the timber-line above Gavarnie in the Central Pyrenees, and he saw young birds on the wing by June 16 (Ibis, 1895, p. 64). An excellent article on the range of *M. alpestris* was published by Count Salvadori in 1893 (Boll. Mus. Zool. Torino, viii. no. 152, May), from which we learn that it breeds in the mountains of Italy and migrates to some degree in autumn, when *M. torquata* is also found inhabiting the same areas. Count Salvadori's article, as translated by Mr. Dresser, states that this Ring-Ouzel "is found in Italy on the mountains during the breeding-season, and partly migrates in autumn, at which season it is found on the plains together with *Merula torquata*, which arrives then from the north. It is probable that to this species must be referred the specimens which during migration occur even in Sicily, and especially on the island of Ustica (*Doderlein*). It appears that *Merula alpestris* breeds throughout the chain of the Alps. In Piedmont it nests most certainly in the Orsera Valley above Viù, whence came some young birds which I saw in Viù in August 1877: also I met with young birds in August at Monbarone, above the Serra d'Ivrea. Early in September I have seen them in the Valley of Graine (Valle di Challand o d'Ayas) and in the Valle della Cinischia near Mont Cenis, and no doubt to this species must be referred the birds which Abre (*fide* Giglioli) says breed in the mountains of the province of Cuneo, and which Bazzetta, Guarinoni, Bernascone, and Galli Valerio say nest at Ossola, the Valsesia, and the Valtellina, as also those which, according to Bettoni, breed in various localities in the Alps of Lombardy, and which are resident and breed in the Alps of the Tyrol, Venetia, and Friuli (*Bonomi, Ninni, Pellegrini, Molari, Fissi, Delaito, Vallon*). Moreover, the Alpine Ring-Ouzel is resident and breeds also in the Apennines, at least in Tuscany. Savi says that some pairs remain to breed, and makes mention of one which he found in Mugello in August 1822, at which place Mr. Roster obtained a pair in June 1879 (*Giglioli*), and Fiorini states that it is resident on the mountains of Casentino (*Giglioli*). It appears that it also breeds on the mountains of Modena, as was stated to Doderlein, and it is not improbable that such is the case. In conclusion, we have the Alpine Ring-Ouzel in Italy breeding on the mountains and partially migratory, and we have the Northern *M. torquata* not breeding here, but wintering, arriving in the autumn and remaining till the end of March."

Count Arrigoni degli Oddi writes to me:—"*M. alpestris* is a common and resident species in the mountains of Piedmont, Lombardy, and Venetia, where it breeds regularly, descending to the lower districts in the winter, but it is always rare in the plains. It has also been observed breeding in the Apennines, but not commonly, and towards the south it becomes less and less frequent."

In the mountains of Bulgaria Prof. Otto Reiser has found the species nesting, and it is also

noticed on migration, having been observed on a few occasions in the Dobrudscha (Orn. Balc. ii. p. 50, 1894). It also nests in Montenegro, according to Reiser and Von Führer (Orn. Balc. iv. p. 54, 1896). A specimen from Sweet Waters near Constantinople, collected by the late Mr. Pearce, is in the U.S. National Museum, according to Dr. Stejneger, and must have been sent from England as a duplicate by someone who had looked upon it merely as an example of the Common Ring-Ouzel. Mr. Robson has also procured the species near Belgrade, and Mr. C. G. Danford met with the species on the Zebil Taurus Mts. in Asia Minor. He writes :—"Flocks of Ring-Ouzels were found at Zebil during the hard weather of the early part of February. At the end of April a pair was met with on the Karanfil dagh, among the débris of loose rocks and gnarled old junipers. The elevation was about 6500 feet. From their cries of alarm and general manner of conducting themselves it was evident that they had a nest close by, though it could not be found."

Adult male. Similar to *M. torquata*, but a little browner above, and always much whiter below, the feathers being broadly edged with white, and having broad white centres, so that the black often forms only a sub-terminal horse-shoe mark ; under tail-coverts also distinctly centred and edged with white ; bill yellow, dusky near the base ; feet dark horny brown ; iris dark brown. Total length 10 inches, culmen 0·9, wing 5·6, tail 4·0, tarsus 1·3.

Adult female. Similar to the male, but of a browner shade, and having the white collar on the fore-neck overshaded with brown. Total length 10·5 inches, culmen 0·95, wing 5·45, tail 4·0, tarsus 1·25.

The descriptions are taken from a pair in the British Museum from Hatszeg, Transylvania, and the specimen figured in the Plate is from Zebil Taurus, Asia Minor. [R. B. S.]

MERULA RUFITORQUES (*Hartl.*).

CHESTNUT-COLLARED OUZEL.

Turdus (*Merula*) *rufitorques*, Hartl. Rev. Zool. 1844, p. 214.
Turdus rufitorques, Gray, Gen. B. i. p. 219 (1847); Du Bus, Esq. Orn. pls. 19, 20 (1848); Salvin & Godman, Biol. Centr.-Amer., Aves, i. p. 22 (1879).
Merula rufitorques, Seebohm, Cat. Birds Brit. Mus. v. p. 255 (1881).

M. notæo nigro, torque collari lætè castaneo: subtùs nigra, pectore lætè castaneo: rostro flavo: pedibus corylinis.

This beautiful bird is apparently the Neotropical representative of the Ring-Ouzels and White-collared Ouzels of the Old World. It is easily distinguished from all the other species of the genus *Merula* by its chestnut breast and chestnut collar round the hind-neck, both of which contrast with its otherwise black plumage.

Until recently the species has been supposed to be confined to Guatemala, where it was met with by Mr. Osbert Salvin and Mr. F. D. Godman in the following localities:—"Dueñas, Calderas, Volcan de Fuego (10,000 to 12,000 feet), Godines, Quezaltenango, Cordillera above Totonicapam (10,500 feet), Chilasco, and Tactic" (Biol. Centr.-Amer., Aves, i. p. 22).

Since the notes in the 'Biologia' were published, Mr. W. B. Richardson has met with the Chestnut-collared Ouzel in Guatemala at the following places:—Santa Maria and Chiupaché, Quezaltenango (10,000 feet), Sept. 1890; San Martin, Quezaltenango, and San José Sololá (8000 feet), in October 1890; El Rincon, San Marcos, October 1890; Toliman Sololá (5000 feet), Dec. 1890. Again, in June 1897, he procured a specimen at Chancol, Huehuetenango (10,000 feet).

In the last-mentioned year Mr. Richardson likewise procured specimens in Chiapas, at the following places:—Volcan de Tacana (March), Niquiril, San Christobal (April, May).

Messrs. Salvin and Godman give the following account of the species (*l. c.*):—"*Turdus rufitorques* is rather local in its distribution in Guatemala, though its range extends over a considerable area in that country. It has, too, a great range in altitude, being found below 5000 feet, both near Dueñas and at Tactic in Vera Paz, and also occurring in some numbers in the pine-forests of the summit of the Volcan de Fuego, as high as 12,000 feet, and in the main cordillera above Totonicapam at a height of 10,500 feet. It does not seem to be found only in one class of forest; for the plains near Dueñas, where *Ipomœa murocoides* abounds, the oak-forests of the volcano, and the pine-forests of the upper parts, the pine-tracts of Quezaltenango and Totonicapam, and the forests it frequents in Vera Paz are each very different in character. It, however, is not so much an inhabitant of the belt of dense forest of mixed trees which surrounds the volcano between 7000 and 10,000 feet; and it is altogether absent from the forests of the hotter parts of Guatemala, which lie below 4000 feet.

"We never found *T. rufitorques* breeding; but, as birds were observed about Dueñas and Quezaltenango in the month of August, it is probable that they had built in the vicinity of these places. It is not, however, a migratory species, except, perhaps, in a very limited sense.

"The habits of *T. rufitorques* recall those of *T. merula*. It is rather shy, generally keeping out

of gun-shot. Its powers of song are not remarkable, and are certainly inferior to those of *Turdus grayi*."

Adult male. General colour above black, including the wings and tail; crown of head, nape, and sides of face black, separated from the back by a distinct collar of deep chestnut; sides of neck, lower throat, fore-neck, chest, and upper breast also deep chestnut; chin white; throat black; under surface of body from the lower breast downwards also black, as well as the sides of the body, thighs, and under tail-coverts, the latter with mesial streaks of white; axillaries and under wing-coverts sooty-black; quills blackish below, ashy along the inner webs: "bill yellow; feet brown; iris brown" (*O. Salvin*). Total length 9 inches, culmen 0·8, wing 5·15, tail 3·7, tarsus 1·2.

Adult female. Differs from the male in being ashy-brown instead of black; lesser and median wing-coverts like the back; greater coverts, bastard-wing, primary-coverts, quills, and tail-feathers brown, externally edged with ashy-brown; crown of head a little darker brown than the back and not so ashy, with dusky centres to the feathers; the sides of the neck and hind-neck light orange-rufous; sides of face dusky ashy-brown like the crown; cheeks and throat ashy-whitish, greyer on the latter, the cheeks tinged with orange and separated from the throat by a malar line of dusky blackish spots, the throat being also slightly streaked with blackish; fore-neck, chest, and upper breast light orange-rufous; the lower breast, abdomen, and flanks light ashy-grey, as also the thighs; under tail-coverts ashy, with broad longitudinal white centres; under wing-coverts and axillaries ashy-brown, slightly washed with orange. Total length 8·5 inches, culmen 0·85, wing 4·85, tail 3·25, tarsus 1·2.

Young male. Apparently at first sight resembles the old female, but is rather darker ashy-brown, and has blackish bases to the feathers; hind-neck, lower throat, and breast orange-chestnut; abdomen ashy-brown, mottled with blackish bases to the feathers; chin white; throat ashy, streaked with black.

The male appears to take at least two seasons before it assumes the full plumage of the adult, with the black throat and abdomen. The rufous collar, never very pronounced in the adult female, becomes abraded during the nesting-season.

There appears also to be a winter plumage, as many adult males have the black of the head, upper parts, and abdomen obscured by ashy-rufous margins to the feathers.

The adult male and female described are from Dueñas, in the Salvin-Godman and Seebohm Collections. The young male described is a Guatemalan skin in the Seebohm Collection. The pair of adult birds figured are the same as those described. [R. B. S.]

MERULA SERRANA (*Tschudi*).

PERUVIAN BLACK OUZEL.

Turdus serranus, Tschudi, Arch. f. Naturg. x. p. 280 (1844); Scl. & Salv. P. Z. S. 1879, p. 491.
Turdus atrosericeus (nec Lafr.), Sclater, P. Z. S. 1859, p. 136; id. Cat. Amer. B. p. 5 (1862).
Merula serrana, Seebohm, Cat. Birds Brit. Mus. v. p. 239 (1881).

M. pedibus flavis: fœminâ minimè mari concolore: maris ptilosi nigerrimâ, fœminæ tamen brunneâ: subcaudalibus saturatè castaneo-brunneis: primario secundo ferè octavum æquante.

In this group of Thrushes the difference between the species has to be sought for in the coloration of the females, for the males are all black, with yellow bills and feet. Mr. Seebohm appears to me to have been perfectly justified in separating them, as he did in the 'Catalogue of Birds,' on the plumage of the female birds alone, and I likewise recognize the propriety of dividing these Blackbirds into two groups dependent upon the shape of the wing and the length of the bastard-quill. In *M. serrana* and *M. atrosericea* the bill is much longer; the wing is rounded and the bastard-primary very large (1·2–1·4 inch); the second primary equals the eighth in length or is a little shorter than the latter.

The female of *M. serrana* is distinguished by its reddish-brown under surface, the throat showing but faint indications of dusky spots, while the under tail-coverts are of a darker reddish-chocolate colour; there is, moreover, none of the ashy-grey colour on the breast and abdomen seen in the female of *M. atrosericea*. The specimen described and figured in the present work has been compared by Dr. Sclater with the type of *T. serranus* of Tschudi.

The range of the present species extends from Bolivia to Upper Amazonia and Peru, thence to Ecuador and Colombia.

Specimens from Bolivia are in the Salvin-Godman and Sclater Collections, and Buckley procured one at Tilotilo (Scl. & Salv. P. Z. S. 1879, p. 591). Henry Whitely met with the species at Huasampilla in March (Scl. P. Z. S. 1873, p. 780), and the Salvin-Godman Collection contains specimens obtained by Mr. O. T. Baron at Leimebamba (9000 feet) in December 1894, and again at Chachapoyas (7300 feet) in October of the same year. Taczanowski gives the following localities for the species in Peru:—Chilpes (*Jelski*), Tambillo, Tamiopampa (*Stolzmann*), Mocuegua, Huancayo, Huanta (*Raimondi Coll.*) (*cf.* Tacz. Orn. Pérou, i. p. 496). A specimen from Quito in Ecuador is in the British Museum, and others were obtained by Fraser at Puellaro (Sclater, P. Z. S. 1860, p. 83) and at Pallatanga (Sclater, P. Z. S. 1859, p. 136, s. n. *Turdus atrosericeus*). The Salvin-Godman Collection has a specimen procured by Buckley at Monji in Ecuador.

In the Seebohm and Salvin-Godman Collections are examples of this Ouzel from Bogotá, and the late T. K. Salmon met with it at Jerico, Medellin, and Frontino in Antioquia (Scl. & Salv. P. Z. S. 1879, p. 491).

Mr. Stolzmann says that in Peru it was somewhat rare at Tambillo, where he met with it

at an altitude of 6000 or 7000 feet. Its only note of alarm that he heard was "*kök*." It appeared to be entirely a bird of the forests and was never seen in the brushwood (Tacz. Orn. Pérou, i. p. 496).

Adult male. Entirely black above and below, with black wings and tail: "bill and feet yellow; iris hazel; eyelid yellow" (*Stolzmann*): "bill, rim round the eye, legs, and feet orange" (*Fraser*). Total length 9·8 inches, culmen 0·9, wing 4·9, tail 3·6, tarsus 1·3.

Adult female. General colour above dark olivaceous brown, gradually inclining to deep chocolate-brown on the rump and upper tail-coverts; the tail-feathers sepia, externally washed with chocolate-brown; wing-coverts like the back, the quills dark sepia, the primaries externally reddish-brown, and the secondaries more like the back; crown of head and sides of face dark olivaceous-brown, like the back; throat and under surface of body dingy rufous-brown, slightly clearer on the breast, abdomen, and flanks, the under tail-coverts chestnut; under wing-coverts and axillaries rufous-brown; quills light sepia below, washed with ashy: "bill brown; feet pale brown; iris dark hazel" (*Stolzmann*). Total length 9·5 inches, culmen 0·95, wing 4·7, tail 4·5, tarsus 1·4.

According to Taczanowski, young birds have the upper parts olive-brown, as in the old female, with the lower throat, breast, and abdomen of a dull greyish-rufous, waved with brown.

The male described and figured in the Plate is one from Antioquia in the Seebohm Collection. The female is figured from a specimen obtained by Fraser at Puellaro and now in the Sclater Collection in the British Museum. Dr. Sclater has compared this skin with the type of Tschudi's *Turdus serranus*, so there can be no doubt that the figure of this specimen in the Plate represents the typical *M. serrana*. The description of the female has been taken from the same specimen.

[R. B. S.]

MERULA ATROSERICEA (*Lafr.*).

VENEZUELAN BLACK OUZEL.

Merula atrosericea, Lafr. Rev. Zool. 1848, p. 3; Seebohm, Cat. Birds Brit. Mus. v. p. 239 (1881).
Turdus atrosericeus, Sclater, P. Z. S. 1859, p. 136.
Turdus xanthosceles (nec Jard.), Léot. Ois. Trinidad, p. 201 (1866).
Turdus serranus (nec Tschudi), Scl. & Salv. P. Z. S. 1870, p. 780.
Semimerula atrosericea, Stejneger, Proc. U.S. Nat. Mus. v. p. 475 (1883).

M. similis præcedenti: maris ptilosi omnino nigrâ, fœminæ tamen brunneâ: pectore et abdomine clarè cineraceis: primario primo ferè octavum æquante.

I CANNOT perceive any tangible difference between the male of this species and that of *M. serrana*, but the female is easily distinguished by its grey breast and abdomen and the different colour of the under tail-coverts.

The species was described by Lafresnaye from specimens sent to him from Caracas in Venezuela, and Mr. Goering has also met with the species at Merida in the same country (Scl. & Salv. P. Z. S. 1870, p. 780). It is also doubtless this Ouzel which has been mentioned by Léotaud under the name of *Turdus xanthosceles*, Jard., from Trinidad. In the latter island Léotaud believed the species to be a migrant from Tobago, whence it visited Trinidad at different times and in small numbers. It is found in company with *Merula flavipes*, which it resembles in habits.

Adult male. Black all over and apparently not to be distinguished from the male of *M. serrana*. Total length 9·5 inches, culmen 1·05, wing 4·8, tail 3·7, tarsus 1·4.

Adult female. Different from the male. General colour above light olive-brown; wings and tail russet-brown, the outer aspect of the primaries paler; sides of face dusky brown, the lores ashy, and the cheeks slightly mottled with dusky lines; chin ashy; lower throat, fore-neck, and chest light olive-brown, with a few slightly indicated dusky spots on the throat; breast and abdomen ashy-grey; sides of body light ochreous-brown; under tail-coverts brown, washed with grey, with narrow whitish shaft-lines; axillaries olive-brown like the chest; under wing-coverts lighter and more golden brown; quill-lining grey. Total length 9·5 inches, culmen 1·05, wing 4·55, tail 3·6, tarsus 1·3.

A young male from Merida in the Salvin-Godman Collection differs from the female described in being darker and in having pale buff longitudinal centres to the wing-coverts and the feathers of the throat and chest; the ear-coverts have also buff shaft-lines.

The descriptions have been taken from a pair of Venezuelan birds in the Sclater Collection.

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MERULA XANTHOSCELES (*Jard.*).

TOBAGO BLACK OUZEL.

Turdus xanthosceles, Jardine, Ann. & Mag. Nat. Hist. xx. p. 329 (1847); id. Contr. Orn. i. p. 14, pl. i. (1848).
Turdus serranus, pt. (nec Tschudi), Scl. & Salv. Nomencl. Av. Neotr. p. 2 (1873).
Merula xanthosceles, Seebohm, Cat. Birds Brit. Mus. v. p. 240 (1881).
Turdus leucops (nec Tacz.), Salvin, Ibis, 1885, p. 199.

M. rostro et pedibus flavis: remige secundo ferè octavum æquante: maris ptilosi coracinâ, fœminæ brunnescente: subcaudalibus brunneis, fulvo marginatis, rhachidibus quoque fulvis.

The male of the present species closely resembles that of *M. infuscata*, and has the same small bill and rounded wing, with the second primary intermediate between the fifth and seventh. The female, however, is decidedly more olive in colour than the hen of *M. infuscata*, especially on the rump and upper tail-coverts.

This Ouzel was described originally by Jardine from the island of Tobago, whence it was sent by Mr. Kirk in 1847. According to the latter gentleman, this Ouzel is a "remarkably shy bird, and has a rich mellow note from April to July" (Jardine, *l. c.*).

I can find no reliable difference between the Tobago birds and those from British Guiana, which Mr. Salvin identified as *T. leucops* of Taczanowski (Ibis, 1885, p. 199). He did not, however, fail to detect certain variations in the Guiana birds, for he writes:—"I notice that the bill of the males is rather smaller, and that the under tail-coverts of the female have much less white." Whitely met with the species in British Guiana on Roraima and on the Merumé Mountains, and young males assuming the adult dress were procured on the 11th of June, 1881.

Adult male. Entirely black above and below, with a blue-black gloss; bill and feet yellow. Total length 8·5 inches, culmen 0·75, wing 4·6, tail 3·1, tarsus 0·95.

Adult female. Different from the male. General colour above olive-brown, becoming clearer olive towards the rump and upper tail-coverts; wing-coverts like the back, the bastard-wing, primary-coverts, and quills sepia-brown, externally olive-brown, a little more ruddy on the outer edge of the primaries; tail olive-brown with a slight ruddy tinge; crown of head and sides of face like the back, but slightly duller; under surface of body fulvescent brown, the abdomen ashy grey; throat dingy brown, with a few spots of blackish-brown; under tail-feathers light brown, with a shaft-streak of buffy-white and a distinct terminal edging of sandy-buff, before which is a slight sub-terminal shade of dusky; axillaries and under wing-coverts pale tawny-buff; quills dusky below, ashy fulvous on the inner webs of the primaries. Total length 8·5 inches, culmen 0·8, wing 4·45, tail 2·9, tarsus 1·0.

The female birds from British Guiana have the same pale-edged under tail-coverts, but they are somewhat darker in tint than those from Tobago, and in one individual from Roraima the throat is very distinctly streaked with rows of triangular blackish spots.

The descriptions of the male and female are taken from the typical specimens now in the Seebohm Collection. The male bears the following label in Jardine's handwriting—"Type for figure and description in Contrib. for 1848," and was purchased by Seebohm at the Jardine sale.

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MERULA LEUCOPS, *Tacz.*

WHITE-EYED BLACK OUZEL.

Turdus atrosericeus, pt. (nec Lafr.), Scl. Cat. Amer. B. p. 5 (1862).
Turdus serranus, pt. (nec Tschudi), Scl. & Salv. Nomencl. Av. Neotr. p. 2 (1873).
Turdus leucops, Tacz. P. Z. S. 1877, p. 331; id. P. Z. S. 1879, p. 22; id. Orn. Pérou, i. p. 496 (1884).
Turdus brunneus, Lawrence, Ibis, 1878, p. 57, pl. i. (= ♀).
Merula leucops, Seebohm, Cat. Birds Brit. Mus. v. p. 241 (1881).

M. rostro et pedibus flavis: remige secundo septimum haud æquante; maris ptilosi nigrâ, fœminæ tamen brunneâ: subcaudalibus albis, basi et lateribus plumarum brunneis.

The male of this species is scarcely to be separated from that of *M. xanthosceles*, but it has a slight bottle-green reflection on the upper parts and on the wings, as opposed to the blue-black reflections of *M. xanthosceles*. In the female the under tail-coverts are white, with a dusky-brown base and lateral edges to the feathers of the same colour.

The range of the species extends from Upper Amazonia to Peru, Ecuador, and Colombia. A specimen obtained by Mr. Edward Bartlett at Chamicuros in the Peruvian Amazons is in the British Museum, and in Peru it has been obtained by Mr. Jelski at Ropaybamba, and by Mr. Stolzmann at Tambillo, Shanyn, and Cutervo (Tacz. Orn. Pérou, i. p. 497).

Specimens from Quito and Sarayacu (*C. Buckley*), in Ecuador, are in the Salvin-Godman Collection, and an adult male procured by Fraser at Pallatanga is in the Sclater Collection. The latter contains a young specimen from Bogotá, whence there is also an adult male in the Seebohm Collection.

Mr. Stolzmann observes:—"It would seem to be common at Tambillo, where it is an inhabitant of the forests. During the months of October and November its varied, though by no means charming, song sounds from the tops of the higher trees. In January I met with a nest from which the young had lately flown. It was constructed of moss, like that of our European Blackbird, and finished off with vegetable fibres, but it was placed on a thick tree, at a height of about eight feet. The young birds were hiding in the neighbourhood and piping. The alarm-note of this species is short and piercing. It is a very shy bird and conceals itself carefully. I saw it at Shanyn (7200 feet), and afterwards I met with it in the forest of Angurra, near Cutervo (9800 feet), but it seemed to be rare, and was perhaps only of accidental occurrence." (Tacz. Orn. Pérou, i. p. 497.)

Adult male. Black above and below, with slight bottle-green reflections: "bill orange-yellow; feet and claws wax-yellow; iris dirty white; eyelids orange-yellow" (*Stolzmann*). Total length 8 inches, culmen 0·9, wing 4·6, tail 3·0, tarsus 1·0.

Adult female. Different from the male. General colour above dark olive-brown, becoming slightly paler olive towards the rump and upper tail-coverts; wing-coverts like the back; bastard-wing, primary-coverts, quills, and tail-feathers deep sepia-brown, externally deep olive-brown like the back, the primaries very narrowly margined; crown of head and sides of face uniform dark brown; cheeks also brown, with a distinct malar line of white, followed by a blackish moustachial line, the

throat being buffy white, with distinct lines of triangular blackish spots; fore-neck, breast, and sides of body light ochraceous-brown; the centre of the abdomen ashy, verging into white on the vent and under tail-coverts, the latter having dusky bases and rather broad margins of dusky brown; axillaries and under wing-coverts orange-buff; quills dusky-brown below, washed with ashy-fulvous along the inner web: bill yellow. Total length 8·5 inches, culmen 0·8, wing 4·3, tail 3·0, tarsus 1·05.

It must be noticed that Taczanowski, in his description of the female of *T. leucops*, gives the under tail-coverts as fulvous and the bill as black. One of the female birds from Sarayacu has a black bill, but in another from the same place the bill is yellow. In other respects they agree with the bird from Chamicuros described above.

Taczanowski says that the young birds in their first plumage are entirely different from those of *M. serrana*.

The male described is from Tambillo (*Stolzmann*), in the Sclater Collection; and the female is from Chamicuros, in the British Museum. [R. B. S.]

MERULA INFUSCATA, *Lafr.*

CENTRAL-AMERICAN BLACK OUZEL.

Merula infuscata, Lafr. Rev. Zool. 1844, p. 41.
Turdus infuscatus, Gray, Gen. B. i. p. 219 (1847); Salvin & Godman, Biol. Centr.-Amer., Aves, i. p. 24 (1879).
Merula infuscatra, Seebohm, Cat. Birds Brit. Mus. v. p. 240 (1881).

M. rostro et pedibus flavis: culmine breviore, 0·8 poll.: primario secundo quintum vix excedente: maris ptilosi omninó nigrâ, fœminæ tamen brunneâ.

The shorter bill and the different proportion of the primary-quills distinguish *M. infuscata* and its allies from the longer-billed members of the section, *M. serrana* and *M. atrosericea*.

The present species ranges from Mexico to Guatemala, but it seems to be by no means a common bird in collections. It was first described by Lafresnaye from a Mexican specimen. De Oca met with it at Jalapa (Sclater, P. Z. S. 1859, p. 334), and Mr. Boucard at Oaxaca (Sclater, *l. c.* p. 370). The latter traveller has also procured examples at Totontepec in January, and others are in the Salvin-Godman Collection, obtained by M. Trujillo at El Patio and Cofre de Perote in June and July. The late Professor Sumichrast states that it is found in the temperate and alpine regions of Vera Cruz. He writes:—"The lower portions of the alpine, and the upper and wooded part of the temperate region are the favourite resorts of this Thrush. It is quite common in these localities at the foot of the mountains, at an elevation ranging from 1250 to 2500 metres (4200 to 8200 feet above the sea)" (*cf.* Mem. Bost. Soc. N. H. i. p. 543).

The Guatemalan specimens in the Salvin-Godman Collection are from the highlands of Vera Paz and from the Sierra de las Minas, where Mr. W. B. Richardson met with the species in July 1897.

In the 'Biologia Centrali-Americana' Messrs. Salvin and Godman give the following note:—"In Guatemala it is by no means a common bird; but we met with it more frequently at Coban, in Vera Paz, than elsewhere. Here it was usually found in the patches of older forest which clothe the summits of the curious conical hills which so abound in this district. A young specimen in our collection most probably came from near Coban, proving that it is a resident species, as we also observed it in November and January, a season at which the bird would not be breeding. Our specimens were all obtained near Coban; for, although we observed this Thrush in the forest of the mountain-ridge above San Gerónimo and at Quezaltenango, near enough to recognize it with certainty, no birds were obtained. Its note much resembles that of *T. merula*." (Biol. Centr.-Amer., Aves, i. p. 24.)

Adult male. Dull sooty black above and below, without any gloss of greenish or blue-black; wings and tail black, as well as the under wing-coverts and axillaries; quill-lining ashy, a little browner on the secondaries. Total length 8·5 inches, culmen 0·8, wing 4·9, tail 3·6, tarsus 1·15.

Adult female. General colour above russet-brown, with a slight wash of olive; wing-coverts, quills, and tail-feathers sepia-brown, externally russet-brown; crown of head like the back; lores dusky, with a supra-loral streak of buff to above the fore part of the eye; ear-coverts dark brown, with sandy-buff shaft-lines; under surface of body light ruddy brown, somewhat duller and more

ashy on the centre of the breast and abdomen; under tail-coverts sandy-brown, with whitish shaft-lines and pale edges to the ends of the feathers; chin and fore part of cheeks ashy whitish, with a tolerably distinct moustachial line of dusky brown, the throat also having a few triangular spots of the same colour; under wing-coverts and axillaries dull orange-rufous; quill-lining ashy. Total length 8·5 inches, culmen 0·75, wing 4·95, tail 3·15, tarsus 1·1.

Young. Much browner than the adults, with the wings and tail blackish; the upper surface mottled with black margins and mesial streaks of sandy buff on the feathers; under surface of body brown, the feathers broadly edged with black, before which is a sub-terminal mark of golden buff, more distinct on the fore-neck and chest; the throat golden-buff with a few black spots.

Another nestling bird from the Sierra de las Minas is much more orange-rufous underneath, and has distinct triangular spots of golden-buff at the end of the wing-coverts, the inner secondaries being also narrowly tipped with the same colour.

The description of the male bird has been taken from a skin from Totontepec in the Salvin-Godman Collection, and the young birds are also described from Guatemalan examples in the same collection. The female described is from Jalapa and is in the Sclater Collection. The figure of the hen bird has been drawn from the same specimen, while that of the male has been taken from a skin from Vera Paz in the Seebohm Collection. [R. B. S.]

MERULA SAMOENSIS, *Tristram*.

SAMOAN BLACK OUZEL.

Turdus vanikorensis (nec Quoy & Gaimard), Peale, U.S. Expl. Exped., Birds, p. 95 (1848).
Merula vanikorensis (nec Quoy & Gaimard), Cassin, U.S. Expl. Exped., Orn. p. 158 (1858); Finsch & Hartl. Faun. Centralpolyn. p. 97 (1867).
Turdus (*Merula*) *vanicorensis* (nec Quoy & Gaimard), Gray, B. Trop. Isl. Pacific Ocean, p. 16 (1859, pt.).
Turdus vanicorensis (nec Quoy & Gaimard), Gray, Hand-l. B. i. p. 255. no. 3710 (1869, pt.).
Turdus samoensis, Tristram, Ibis, 1879, p. 188.
Merula samoensis, Seebohm, Cat. Birds Brit. Mus. v. p. 242 (1881); Wiglesw. Aves Polyn. (Abhandl. k. Mus. Dresden, 1890–91, no. 6), p. 39 (1892).

M. minor: alâ 3·75–4·1 poll.: rostro et pedibus flavis: nigricans, fœminâ brunnescentiore: gutture haud fusco striato.

This small species appears to be confined to the Samoan or Navigators' Islands, where it was obtained by Peale at Alua, in the interior of the island of Upolu. He states that it inhabits the shady and retired parts of the forests of the Samoan Islands, and is said to sing with a powerful and sweet voice.

The Rev. S. J. Whitmee states that the native name in Upolu for this Ouzel is "Tūtūmalili." He gives the following note on the species:—"Common in the bush. There is no living object in Samoa which gives me so much of *home* feeling as this bird. It flies low before one for short distances, with the peculiar Blackbird note, exactly as its congener does along the English hedgerows. The only thing lacking is the English Blackbird's song. Its nest is very similar to that of the English Blackbird, except that it is rather smaller, to suit the smaller size of the bird; and, unless my memory fails me since my birds'-nesting days, the eggs of the two might almost be interchanged without the error being detected, except that the Samoan egg is perhaps the smaller of the two. The figure of the egg in Finsch and Hartlaub's work is very incorrect." (Ibis, 1875, p. 439.)

Canon Tristram very properly separated the Samoan Ouzel under a distinct name, for it had hitherto been identified with the *Merula vanicorensis* of Quoy and Gaimard from Vanikoro, and it is quite unlikely that the Ouzels from these two localities would be identical.

Eggs collected by Mr. Whitmee are of two types, and vary considerably in size. In one form the ground-colour is light bluish-green, thickly spotted and flecked with pale reddish-brown and with faint greyish-brown underlying spots. In the other type the ground-colour is of a stone-colour or light bluish, against which the pale rufous spots and flecks are more in contrast, and show up rather more plainly than in the bluish-green type. Axis 1·1–1·3 inch, diam. 0·8–0·9.

Adult male. Sooty-black above and below, a little duller on the under surface: "bill orange; feet brownish-orange; iris dark brown" (*E. L. Layard*). Total length 7·5 inches, culmen 0·8 wing 4·2, tail 2·8, tarsus 1·3.

Adult female. Similar to the male. Total length 7·0 inches, culmen 0·75, wing 3·95, tail 2·65, tarsus 1·25.

The specimens described are a pair from Acra, Upolu, collected by Mr. E. L. Layard, in the Seebohm Collection. The birds figured in the Plate are also in the same collection.

[R. B. S.]

MERULA MAREENSIS, *Layard & Tristr.*

NEW-HEBRIDEAN OUZEL.

Turdus mareensis, Layard & Tristram, Ibis, 1879, p. 472; Layard, Ibis, 1880, pp. 221, 226.
Merula mareensis, Seebohm, Cat. Birds Brit. Mus. v. p. 249 (1881); Sharpe, Ibis, 1900, p. 346.
Merula vanikorensis, pt. (nec Q. & G.), Wiglesworth, Aves Polyn. p. 38 (1891).

M. minor, nigricans: rostro et pedibus flavis: subcaudalibus albo latè striatis.

This species was sent to Mr. E. L. Layard from the Island of Maré in the Loyalty group, where it is known by the name of "Wassassé." It is like *M. samoensis* in colour, but has the under tail-coverts broadly streaked with white. Messrs. E. L. & L. C. Layard state that it is a very shy and wary bird, and their correspondent in Maré found it difficult to procure. More recently Capt. A. M. Farquhar has found the species on Mallicolo and Espiritu Santo. He writes:—"Very wild, but not uncommon near Hoy Head, Espiritu Santo. I obtained three clutches of eggs, two incubated, two fresh, one just laid; also a nest with two young birds. The nest was of fine roots, lined with dead blades of grass and dead leaves. Dimensions $5 \times 3\frac{1}{2} \times 2$ in. The eggs like those of *Turdus iliacus*: $2{\cdot}5 \times 1{\cdot}6$. This Thrush breeds in August and September."

Mr. Wiglesworth, in his most useful memoir on the Birds of Polynesia, considers that *M. mareensis* is identical with the *Turdus vanikorensis* of Quoy and Gaimard, a species procured during the voyage of the 'Astrolabe' on Vanikoro Island in the Santa Cruz group. This may probably be the case, but it is impossible to say for certain until the type of *T. vanikorensis*, in the Paris Museum, has been compared.

Adult male. General colour above black, including the tail-feathers; the wings slightly browner; under surface of body entirely sooty-black, with a little white on the vent; under tail-coverts black, with shaft-streaks and terminal spots of white; under wing-coverts and axillaries sooty-black: "bill and feet orange; iris drab-brown" (*E. L. Layard*). Total length 7·8 inches, culmen 0·9, wing 4·25, tail 2·8, tarsus 1·35.

Adult female. Similar to the male, but browner, especially underneath, the breast being decidedly browner than the back, and inclining to grey on the abdomen; under tail-coverts black, with the same white shaft-streaks and tips as in the male: "bill and feet bright orange; iris drab-brown" (*E. L. Layard*); "eyelid yellow" (*A. M. Farquhar*). Total length 7·5 inches, culmen 0·8, wing 4·1, tail 3·0, tarsus 1·25.

The pair of adult birds described are in the Seebohm Collection and were obtained on the Island of Maré by Mr. E. L. Layard, the male in October 1879 and the female in June 1882.

The specimen figured in the Plate is a breeding male obtained by Mr. Layard in November 1881, and also in the Seebohm Collection. [R. B. S.]

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MERULA FUSCATRA, *D'Orb. & Lafr.*

D'ORBIGNY'S OUZEL.

Turdus fuscater, D'Orb. & Lafr. Mag. de Zool. 1837, Syn. Av. p. 16; D'Orb. Voy. Amér. Mérid. p. 200, pl. ix. fig. 1.
Turdus anthracinus, Burm. J. f. O. 1858, p. 159.
Merula fuscatra, Seebohm, Cat. Birds Brit. Mus. v. p. 243 (1881).
Merulissima fuscatra, Seebohm, t. c. p. 232 (1881).

M. notæo et gastræo concoloribus, fere nigricantibus, aut brunneis [♂] vel cinereis [♀]: alâ 5·5; culm. 1·0–1·45: rostro et pedibus flavis.

The adult male of this species has a very long bill, which sometimes shows traces of minute serrations, as in the Himalayan genus *Zoothera*; such an example is figured by Mr. Seebohm in the fifth volume of the 'Catalogue of Birds,' p. 243. As will be seen below, I have found the specimens from Catamarca and Cordova to have decidedly shorter bills; but there seems to be a gradation between the long-billed and short-billed forms, and I have been unable to separate them specifically; at the same time, it must be remarked that the series in the British Museum is not sufficient to determine all the changes of plumage undergone by this Ouzel, and it is possible that the grey form found in the interior of Argentina may be distinct from the blacker long-billed form which extends from Mendoza to the Andes of Bolivia. Although the black form appears to be peculiar to the latter countries, I have seen a female from Mendoza which could not be distinguished from others from Catamarca and Cordova.

This species was described by D'Orbigny and Lafresnaye from the Andes of Bolivia, where it was found at an elevation of from 5000 to 11,000 feet. D'Orbigny remarks:—"We have met with it on successive occasions in the neighbourhood of the town of La Paz, and later on to the eastward of the eastern Cordillera at Enquisivi, in the valley of Cochabamba, at Mezque, Valle Grande, and at Chuquisaca. It is generally noticed in the bush-covered ravines, especially near to habitations, where it frequents the gardens. Sometimes in winter it becomes so tame as to even enter the houses. It is often seen singly and at other times in companies of two or three individuals of the same species, searching among the dead leaves under the bushes for its food; it frequently raises its tail, especially when it alights, and occasionally hides itself in the bushes, only to come out later with a lively air and scour the neighbourhood. When pursued, its nature is so little timid that it flies but a short distance.

"It is resident in the country, where it is very common, and does not mix with other birds, but otherwise it very closely resembles the Common Blackbird of Europe, and its song during the breeding-season has much of the melody of the last-named species. It feeds on small grain and insects. In August and September it constructs in the bushes a nest which is very like that of the European Blackbird, excepting that there is no layer of mud on the external portion. It is often kept as a cage-bird in the country, where the Aymaras give it the name of 'Chiguanco,' which is their generic title for all Thrushes."

Burmeister says that it is "very common at Mendoza, Cordova, and Tucuman, and met with

among the shady trees of the promenades; has a better song than our Blackbird, which is heard at a distance, especially in the evening. Called 'Crispin' in Tucuman" (La-Plata Reise, ii. p. 474, 1862).

Mr. E. W. White (P. Z. S. 1882, p. 593) remarks:—"I have noticed this bird in the provinces of Mendoza, San Juan, San Luis, Cordova, and Catamarca, where it is much esteemed as a cage-bird on account of its beautiful whistle. In Mendoza it goes by the name of 'Sorsal,' in Catamarca and Cordova by that of 'Merlo,' and in Andalgala 'Chocoyno'; in the last-mentioned place it is seen generally about the hedges round the town. In Catamarca, however, it is only observed during winter and spring. The Italians settled in the town of Mendoza are very fond of its flesh, and are rapidly exterminating it in that neighbourhood."

The species has also been sent from the Pampas Argentinas by Leybold (*cf.* Martins, J. f. O. 1875, p. 443). A specimen said to have been obtained by Mr. T. Bridges in Chile is in the British Museum, but in all probability this locality is erroneous, and the example really came from Bolivia, where Mr. Bridges also made large collections. Mr. E. C. Reed (Ibis, 1893, p. 595) says that although the species is found near Mendoza he has never seen any Chilian specimens.

Adult male. General colour above blackish-chocolate, darker towards the crown and hind-neck; wings and tail dark brown; lores, sides of face, and ear-coverts blackish; entire under surface of body blackish-chocolate, the under wing-coverts and axillaries like the breast: "bill and feet bright yellow; iris reddish-brown; eyelids bright yellow" (*A. D'Orbigny*). Total length 11 inches, culmen 1·45, wing 5·5, tail 4·65, tarsus 1·55.

Adult female. Slaty-grey above and below, lighter on the under surface, especially on the throat, which has some blackish streaks; under wing-coverts and axillaries ochreous-brown. Total length 10 inches, culmen 1·2, wing 5·25, tail 4·4, tarsus 1·4.

Young. Greyer than the adults below and lighter brown above; the underparts mottled with buff centres to the feathers, which have also blackish margins; the under wing-coverts ochraceous-buff, with dusky edges.

The birds from the Argentine Republic differ from those of Mendoza in having a shorter bill and in being lighter and greyer in colour, but some examples from Mendoza cannot be distinguished from those from Argentina.

A male from Cosquin (E. W. White, July 17, 1882) has the culmen only 1·15 inch. The plumage is not nearly so black as in the male bird from Mendoza, and there are hoary-grey margins to the primaries; below it is decidedly more ashy than the Mendoza individual described, especially on the sides of the body.

A female from Cosquin (E. W. White, Aug. 15, 1882) is much more ashy-brown than the male, but has the hoary fringes along the outer web of the primaries. The chin is hoary-grey, and there are traces of dusky blackish stripes on the sides of the throat. Culmen 1·1 inch.

Two female birds obtained by Mr. White at Fuente de Andalgala, in Catamarca (Sept. 10, 1880), have the culmen 1·15 inch. They are also ashy-brown like the one procured in August, and have obsolete signs of dark streaks on the throat.

Mr. Seebohm states that the fourth and fifth primaries are nearly equal and longest, and that the second primary is about equal to the eighth. I find, however, that in the series in the British Museum the second primary is equal to the seventh and is much longer than the eighth.

The male bird described is a specimen from Mendoza in the Seebohm Collection; the female being from San Rafael in the same province, obtained in July 1897, and presented to the British Museum by Professor Moreno.

[R. B. S.]

MERULA GIGAS, *Fraser*.

GIANT OUZEL.

Turdus gigas, Fraser, P. Z. S. 1840, p. 59.
Semimerula gigas, Sclater, P. Z. S. 1859, p. 332.
Merulissima gigas, Seebohm, Cat. Birds Brit. Mus. v. p. 232 (1881).
Merula gigas, Seebohm, Cat. Birds Brit. Mus. v. p. 244 (1881).

M. maxima: alâ 5·9–6·5 poll.: rostro et pedibus flavis: suprà schistacea, corpore subtùs pallidiore schistaceo: caudâ nigricante.

This large Ouzel appears to range from Venezuela to Colombia, Ecuador, Peru, and Bolivia. Mr. Goering has sent two specimens from the neighbourhood of Merida (Sclater & Salvin, P. Z. S. 1875, p. 234); and although these specimens are not quite adult, I cannot find any tangible difference between them and others from Bogotá, and they are certainly not *M. cacozela* from the Sierra Nevada of Santa Marta.

The Giant Ouzel was first described by Fraser from a Bogotá specimen, and examples from this locality are not at all uncommon in collections. Mr. T. H. Wheeler has forwarded specimens from the environs of Bogotá, procured at a height of from 8500 to 9500 feet. Mr. T. K. Salmon obtained several examples near Santa Elena in Antioquia, and also at Retiro in the same State at an elevation of 7000 feet. Count von Berlepsch records the species from Bucaramanga, where it was obtained by Herr Minlos (Berl. J. f. O. 1884, p. 279). In Ecuador the species has been found in a number of places, at Cuenca by Fraser (Sclater, P. Z. S. 1858, p. 451), and the same collector also obtained it at Titiacun and Matos on the Plateau of Riobamba (Sclater, *t. c.* p. 550). In the Salvin-Godman Collection are specimens from the vicinity of Pasto (*Lehmann*), Sical (*C. Buckley*), and Monji (*C. Buckley*); while Stolzmann met with the species at Baños at 6200 feet (Tacz. & Berl. P. Z. S. 1885, p. 70). Mr. W. F. H. Rosenberg found it near Cayambe, in North-west Ecuador, between 9000 and 10,000 feet (Hartert, Nov. Zool. v. p. 479, 1898).

An example from Ninabamba, in Peru, obtained by Stolzmann, and now in the Sclater Collection, seems to me to be the true *M. gigas* and not *M. gigantodes*. It is slightly more ashy-grey below than Ecuadorian specimens, and the dusky streaks on the throat are obsolete. Wing 6·25 inches, culmen 1·1, tarsus 1·7.

Two specimens are in the Salvin-Godman Collection from Bolivia, where they were obtained at Sorata by the late Clarence Buckley. These birds are a little darker than Colombian examples, and have the throat more dusky, but I do not see that they can be separated specifically from true *M. gigas*, and the darker coloration may be due to their being in winter plumage. Dr. Rusby obtained a specimen in the Province of Yungas (Allen, Bull. Amer. Mus. ii. p. 78, 1892).

Mr. Fraser procured the nest and eggs of this species at Riobamba in June, and Dr. Sclater describes them as follows:—"The nest is made of stalks and grass, lined with fine hay. The eggs appear rather small for the bird, measuring 1·3 by 1 inch. They are of the usual character of *Turdus* as regards colour, being of a bluish-green minutely freckled with pale red."

Adult male. General colour above dark slaty-brown, with the head scarcely more dusky than the back; wing-coverts like the back, the quills dark sepia-brown; tail-feathers blackish; lores blackish; the ear-coverts and sides of face also blackish; cheeks and under surface of body dull ashy-brown, slightly paler towards the abdomen and flanks; the throat a little more dingy brown with obsolete blackish streaks; under tail-coverts blackish; axillaries and under wing-coverts like the breast: "bill red or orange; feet orange; iris reddish-hazel; rim round the eye yellow" (*L. Fraser*). Total length 12·5 inches, culmen 1, wing 6·5, tail 5·3, tarsus 1·7.

I do not see how a male bird from Santa Elena in Antioquia can possibly be separated from the bird described, which is one of Fraser's specimens from Matos, Ecuador (*Sclater Coll.*). The dusky streaks on the throat are prominent, and the measurements are:—wing 5·95, culmen 1, tarsus 1·7.

A female from Ninabamba, Peru (*Jelski*: *Sclater Coll.*), also seems to me to be identical. Wing 6·25 inches, culmen 1·1, tarsus 1·7. It is slightly more ashy-grey below, and the dusky streaks on the throat are obsolete.

Young. More dusky above than the adults and with a slight olive tinge; under surface of body pale ashy, mottled with black bars at the ends of the feathers, before which is a whitish or pale buff spot or bar; the sides of the body tinged with olive (Bogotá, 8500–9500 feet).

Mr. Seebohm says that in this species the second primary is about equal to the tenth, but in the British Museum series the second primary would seem to fall between the seventh and eighth or to be equal to the seventh.

The description of the male has been taken from a bird from Matos in the Sclater Collection, that of the young being from a specimen from the environs of Bogotá in the Salvin-Godman Collection. I cannot find any indication on Mr. Seebohm's part as to the specimen he figured, but I suspect that it was one of Salmon's Antioquia birds. [R. B. S.]

MERULA GIGANTODES (*Cab.*).

PERUVIAN GIANT OUZEL.

Turdus gigantodes, Cab. J. f. O. 1873, p. 315
Merula gigantodes, Seebohm, Cat. Birds Brit. Mus. v. p. 244 (1881).
Merulissima gigantodes, Seebohm, t. c. p. 232.

M. maxima: alâ 5·9 poll.: rostro et pedibus flavis: suprà fuliginoso-nigra; subtùs vix pallidior. Similis *M. giganti*, sed ubique saturatior.

Jelski discovered this species at Maraynioc, in Central Peru, and shortly afterwards it was found by the late Henry Whitely in the Andes of Cusco and at Ccachupata (Sclater & Salvin, P. Z. S. 1874, p. 503). Mr. Stolzmann found it very common at Cutervo, at an altitude of from 8000 to 10,000 feet, in the non-wooded Sierra, where it kept to the low brushwood. Like *Agriornis solitaria*, it was one of the earliest of the birds in that part of the country, heralding the approach of dawn with its agreeable song. It loves also to sing in the evening, but it is seldom to be heard in the middle of the day. On going out at daybreak into the country the song of these Thrushes can be heard on all sides, but as soon as the sun appears they are all silent. The natives recognize seven variations in the song of this bird, its call-note being a *tschach-tschach*. It feeds principally on the ground. In the stomach of one of these birds Mr. Jelski has found strawberries, other kinds of berries, the seeds of *Agalium*, besides larvæ and other insects (Orn. Pérou, i. p. 495).

This species also occurs in Ecuador, as two specimens from the neighbourhood of Quito in the British Museum are not to be separated from Peruvian examples.

The egg, which is found in the early days of June, is, according to Taczanowski, greenish, varied over the whole surface with scattered irregular markings of pale violet-grey, with other spots of a somewhat dark reddish-brown, the large end being almost entirely covered with these markings.

Adult female. General colour above dark chocolate-brown, the feathers with edges of lighter chocolate; wings and tail slightly blacker; crown of head and sides of face a little darker chocolate-brown than the back; under surface of body also dark chocolate-brown, with faintly indicated margins of olivaceous-brown; under tail-coverts blackish-brown; under wing-coverts and axillaries dark chocolate-brown; quills sepia-brown below, ashy along the inner webs: "bill and feet orange-yellow, the claws horn-colour; iris cherry-red; eyelids yellow" (*J. Stolzmann*). Total length 13 inches, culmen 1·25, wing 5·9, tail 5·3, tarsus 1·75.

The light margins to the feathers which are plainly visible in the bird described, which is from Ccachupata, are also seen in another female from Cuzco. In a bird from Quito, however, which is in worn plumage and has evidently finished breeding, the general colour is darker, and there is no sign of any light edgings, which I take to be, in all probability, a character of the winter plumage.

The specimen described is from Ccachupata, collected by Whitely, in the Sclater Collection; and the bird figured is one in the Seebohm Collection, obtained by Whitely in the Andes of Cuzco.

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MERULA CACOZELA, *Outram Bangs.*

SANTA-MARTA GIANT OUZEL.

Merula gigas (nec Fraser), Salvin & Godman, Ibis, 1879, p. 198.
Merula gigas cacozela, Bangs, Proc. Biol. Soc. Washington, xii. p. 181 (1898).

M. maxima: alâ 6·25 poll.: olivascenti-brunnea, gastræo vix pallidiore: caudâ olivascente.

This species appears to be very distinct, and the three specimens in the British Museum from the Sierra Nevada de Santa Marta are all much more olive in colour than true *M. gigas*. Mr. Seebohm had clearly distinguished it, and had had a separate Plate drawn, with a name engraved thereon. As I could not find where he had published this name, I brought it forward as new at a meeting of the British Ornithologists' Club in the winter of 1898, but the description by Mr. Outram Bangs reached England about the same time, and I was thus enabled to suppress Seebohm's MSS. title.

Mr. F. A. A. Simons procured a specimen in February 1878 at San Sebastian, in the Sierra Nevada of Santa Marta, at a height of 6700 feet, as recorded by Messrs. Salvin and Godman (Ibis, 1879, p. 198). Mr. Simons afterwards obtained two more specimens at 9000 feet in Sept. 1879, which are also in their collection. Messrs. Salvin and Godman remarked on the paler colour of the Santa Marta specimens, but did not consider them worthy of specific separation.

Three specimens procured in June 1898 by Mr. W. W. Brown at Macotama (8000 feet), in the Sierra Nevada of Santa Marta, have been described by Mr. Outram Bangs as a subspecies of *M. gigas*. He duly remarks upon the more olive colour of the specimens, and also draws attention to the shorter tail of *M. cacozela*. In the specimens in the British Museum I do not find any difference in the length of the tail between *M. cacozela* and *M. gigas*, all the examples being of about the same dimensions.

Adult. Similar to *M. gigas*, but much more olive and with a larger bill. General colour above olive-brown, the crown scarcely browner than the back; quills and tail sepia-brown, externally olive or edged with olive; lores black; ear-coverts dark brown, almost of the same tint as the crown; cheeks, throat, and breast pale earthy-brown, fading into light olivaceous-brown on the abdomen; the throat with some broad blackish streaks; thighs ashy-brown; under tail-coverts brown, darker than the abdomen, and with olivaceous margins; under wing-coverts and axillaries brown, a little darker than the breast; quills sepia-brown below, ashy on the inner webs: "bill and feet orange-yellow; eyes orange-yellow" (*F. A. A. Simons*). Total length 12·5 inches, culmen 1·2, wing 6·25, tail 5·35, tarsus 1·75.

The description and figure in the Plate are both taken from the San Sebastian specimens in the Salvin-Godman Collection. [R. B. S.]

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MERULA NIGRESCENS (*Cab.*).

CABANIS'S OUZEL.

Turdus nigrescens, Cab. J. f. O. 1860, p. 324; Salvin & Godman, Biol. Centr.-Amer., Aves, i. p. 25, tab. iv. (1879).
Merula nigrescens, Seebohm, Cat. Birds Brit. Mus. v. p. 242 (1881).

M. saturatè chocolatino-brunnea, pileo vix nigricantiore: rostro et pedibus flavis: alis caudâque nigerrimis: subcaudalibus nigricantibus, minimè pallidè apicatis.

This species is found in the mountains of Costa Rica and Panama. It was first discovered by Dr. Hoffmann on the Volcan de Cartago in Costa Rica (Cab. J. f. O. 1860, p. 324), and here, Dr. von Frantzius tells us, it is met with at an elevation of from 9000 to 10,000 feet (J. f. O. 1869, p. 290). Messrs. Salvin and Godman remark:—"This mountain seems to be the headquarters of the species in Costa Rica, as all collectors who have worked there have obtained specimens. It is, however, also found in the Dota Mountains, which lie at no great distance from Cartago" (Biol. Centr.-Amer., Aves, i. p. 25).

A specimen from San Francisco (4500 feet), obtained by Mr. Henry Rogers, is in the Salvin-Godman Collection, and Mr. Boucard met with the species on the Volcan de Irazu in May 1877. It was also obtained by Cooper on the last-named mountain. Mr. Nutting also procured a specimen on the summit of Irazu in February (Proc. U.S. Nat. Mus. v. p. 494).

The species likewise occurs in Panama, whence Arcé sent specimens from the southern slope of the Volcan de Chiriqui (Salvin, P. Z. S. 1870, p. 180).

Adult male. General colour above dark chocolate-brown, the scapulars like the back; quills and tail black, contrasting with the browner colour of the back; the lesser wing-coverts, and the inner major coverts and innermost secondaries, slightly washed with brown; head dark chocolate-brown like the back; lores and ear-coverts blacker; cheeks and under surface of body deep chocolate-brown; the under tail-coverts black, edged with brown; axillaries chocolate-brown, the under wing-coverts blacker; quills blackish-brown below: bill and feet yellow. Total length 9·7 inches, culmen 0·95, wing 5·7, tail 4·5, tarsus 1·4.

Adult female. Similar to the male, but of a slightly paler brown. Total length 9·5 inches, culmen 0·9, wing 5·45, tail 4·1, tarsus 1·3.

The male described is in the Sclater Collection from the Volcan de Irazu (*Zeledon*), and the female is from the Volcan de Chiriqui in the Salvin-Godman Collection.

The figures in the Plate are drawn from a male bird in the Salvin-Godman Collection from the Volcan de Irazu (*Cooper*). [R. B. S.]

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MERULA NIGRORUM (*Ogilvie Grant*).

NEGROS-ISLAND OUZEL.

Turdus nigrorum, Ogilvie Grant, Ibis, 1896, p. 544; id. & Whitehead, Ibis, 1898, p. 238, pl. v. figs. 8, 9.

M. brunnea: rostro et pedibus flavis: plagâ crissali albâ: tibiis et subcaudalibus nigricanti-brunneis, his angustè albido fasciatim terminatis.

This species has no very close ally. It is a brown-coloured Ouzel and appertains more to the American group of the genus *Merula*, such as *M. nigrescens* and *M. fuscatra*, the species which it most resembles in the Old World being apparently *M. samoensis*.

It is confined to the high mountains of the Island of Negros in the Philippines. Here it was discovered by Mr. John Whitehead on the volcano of Canloön, at a height of 6000 feet, and both eggs and young birds were obtained by the explorer. At an altitude of 6600 feet on the above-mentioned mountain Mr. Whitehead found a nest on the 12th of April, 1896, which contained two eggs, much incubated. On the 21st of April he found a second nest with two young birds, from which it may be concluded that no more than two eggs are laid by this species. The nest was built about twelve feet from the ground in a prickly creeping plant, called "Pandan" by the Malays (*cf.* Grant & Whitehead, *l. c.*). Mr. Whitehead (Ibis, 1899, p. 213) says that the species was not uncommon on Mt. Canloön at the above elevation.

The two eggs obtained by Mr. Whitehead have a pale green-coloured ground, over which is distributed a close mottling of light cinnamon-rufous, which forms more distinct blotches on one egg than on the other. The underlying spots are pale reddish-brown, but are so thickly intermingled with the rufous ones that no pronounced difference can be detected. Axis 1·2 inch, diam. 0·8–0·9.

Adult male. General colour above dark chocolate-brown, the head scarcely darker than the back; lesser wing-coverts like the back; median and greater coverts black, as also the quills and tail-feathers; sides of face dark brown; throat and under surface of body light chocolate-brown, becoming a little more ashy on the breast and abdomen, which have indistinct dusky shaft-lines on the feathers; vent white; under tail-coverts blackish-brown, narrowly edged with ashy-white at the ends; under wing-coverts and axillaries dark ashy-brown; lower primary-coverts and quills below blackish: "bill bright yellow; feet yellow; iris dark brown; orbital skin bright sulphur-yellow" (*J. Whitehead*). Total length 9 inches, culmen 0·9, wing 4·9, tail 3·5, tarsus 1·35.

Adult female. Similar to the male. Total length 9 inches, culmen 0·9, wing 4·75, tail 3·5, tarsus 1·4.

Young. Similar to the adults on the upper surface, but rather browner; under surface of body rufous, dusky on the throat, the rufous feathers of the breast and abdomen having blackish bars at the ends, producing a spotted appearance; vent white, as in the adults; under tail-coverts with mesial streaks and tips of white or buff; thighs and lower flanks dark brown.

The descriptions and the figures in the Plate are taken from the typical specimens in the British Museum. [R. B. S.]

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MERULA NIGROPILEUS (*Lafr.*).

BLACK-CAPPED OUZEL.

Turdus (*Merula*) *nigropileus*, Lafr. in Deless. Voy. Inde, pt. ii. p. 27 (1843).
Merula nigropileus, Blyth, Cat. B. Mus. As. Soc. p. 162 (1849); Seebohm, Cat. Birds Brit. Mus. v. p. 250 (1881); Oates, Faun. Brit. Ind., Birds, i. p. 126 (1890).
Turdus nigropileus, Jerd. B. Ind. i. p. 523 (1862).

M. suprà schistacea; subtùs quoque schistacea: rostro et pedibus flavis: pileo nigro: collo postico et interscapulio lilacino-brunneis.

The Black-capped Ouzel is an inhabitant of the western and central portions of the Indian Peninsula, ranging north to Mount Abu. Jerdon writes (B. Ind. i. p. 524):—"This Blackbird is found, occasionally, throughout the greater part of the south of India, in the plains during the cold weather only; but it is a permanent resident on the hilly regions of the south, at a moderate elevation. It is found in Coorg, the Wynaad, and other parts of the Western Ghats, and in some of the higher table-lands in Central India, as in Bustar and Jalna. I have killed it in my own garden, at Nellore in the Carnatic, at Tellicherry, and other places at low elevation. I never saw it on the Nilghiris."

The Rev. S. B. Fairbank has sent a number of specimens to Mr. Hume from Mahabaleshwur, procured from February to May (*spec. in Mus. Brit.*). He says that it has become abundant in the neighbourhood, and it is found all along the top of the Sahyadri Hills (Str. F. iv. p. 257, 1876). Colonel A. E. Butler writes:—"It is a permanent resident and common all along the Sahyadri Range and in the adjacent forests as far north as Khandala, being most abundant in the rains. It belongs almost exclusively to the Ghat Region, but I have shot stragglers in Belgaum on two occasions" (Str. F. ix. p. 399, 1881). In South Konkan, Mr. G. Vidal says that this Ouzel is common everywhere in groves and gardens, both on the coast and inland (Str. F. ix. p. 63, 1880). In his paper on the Birds of North Kanara, Mr. J. Davidson says that the present species is "found sparingly in the cold weather along the coast, and is noticed occasionally here and there above the Ghats at that season. About Halyal and Mundgode it is fairly common in March and April." He never found the nest is Kanara, but is pretty certain that it must occasionally breed in the northern portion of the district (Journ. Bomb. Nat. Hist. Soc. xi. p. 670, 1898). Mr. C. J. W. Taylor says that it is a common species in the Manzeerabad district of Mysore, and he has found eggs on the 25th of May (Str. F. x. p. 459).

Specimens from Matheran, obtained in January and February by Colonel Hayes Lloyd, are in the British Museum. The Tweeddale Collection contains others from Khandeish.

Mr. Hume states that in the Central Provinces the species has been found at Raipur and Sambulpur (Str. F. vii. p. 213, 1878). Specimens from Raipur procured in January, from Sambulpur (December), and from Panchmari (June) are in the Hume Collection in the British Museum.

The Hume Collection likewise contains a series of birds from Mount Abu in Rajputana, obtained in May, June, July, and September, by Dr. G. King and Colonel E. A. Butler. The latter writes:—

"It breeds at Abu in the rains, commencing nidification towards the end of the hot weather, but I was never fortunate enough to find a nest. It is common, but I have never met with it on the plains; and I am inclined to think that it is migratory, as I lost sight of it during the cold weather, and did not see it again till May, when it reappeared in considerable numbers" (Str. F. iii. p. 470, 1875).

Very little has been written about the habits of the Black-capped Ouzel. Colonel Butler says that it has a loud rich note, resembling the whistle of *Turdus musicus*. Dr. Jerdon observes:—"Like other Blackbirds, it feeds much on the ground on snails, soft insects, and occasionally on fruit. At Nellore I found that it lived almost entirely on the pretty *Helix bistrialis*, so common in hedgerows in the Carnatic. I heard its song at Tellicherry towards the end of the cold weather, but only very early in the morning long before sunrise. I also heard it in Bustar in April, where it was breeding. It is not nearly so powerful, or so fine, as that of its Nilghiri or Ceylon congener."

The following observations on the nesting of the species have appeared in Mr. Oates's edition of Mr. Hume's 'Nests and Eggs of Indian Birds' (vol. ii. p. 91):—"Mr. H. Wenden has found many nests of this Blackbird on the Ghâts near Khandala. He says:—

"'6th July, 1879. Lonauli. Found nest with three young birds in a small euphorbia bush, $4\frac{1}{2}$ feet above ground.

"'27th July. Davidson and I found two nests, each with three eggs. One situated in the fork of a horizontal bough about 5 feet from ground, and the other on the point of a pollarded branch 8 feet from ground.

"'2nd August. I found another nest with three eggs, 12 feet up in a euphorbia bush. I have found several other nests, some old and others building. This species seems to be breeding very freely about here (Lonauli, from 1800 to 2400 feet above the sea).

"'On 27th July I shot both male and female from a nest, and Davidson and I identified them. The nests are composed of stout twigs and grass, covered externally with much earth and moss. Internally they measure from $3\frac{1}{2}$ to $3\frac{3}{4}$ inches diameter by 2 deep, neatly lined with fine grass-stems, root, &c.; the lining of one nest consisted entirely of the spines of casuarina.'

"The eggs of this species are, typically, moderately broad, very regular ovals, but short broad, more or less pyriform varieties, and, again, considerably elongated oval ones, occur. The eggs are always fairly glossy, and some have a fine gloss. The ground-colour varies from greenish-white to a delicate pale sea-green, the markings, usually most dense about one or other end, where they often form a more or less regular cap or zone, are a rich brownish-red and pale purple, and consist of specks, spots, blotches, and streaks, becoming sometimes quite confluent at one end of the egg, to which in some eggs they are almost entirely confined, while in others, with the exception of a slight tendency to conglomerate round the large end, they are pretty evenly distributed over the entire surface.

"The eggs vary from 1·02 to 1·17 in length, and from 0·78 to 0·88 in breadth; but the average of 15 eggs is 1·08 by 0·82."

Adult male. General colour above light slaty-grey, decidedly browner on the mantle, hind-neck, and sides of neck and nape, leaving the crown of the head black, forming a cap; wing-coverts clear slate-colour; bastard-wing, primary-coverts, and quills blackish, externally bluish slate-colour; the primaries inclining to hoary-grey on their outer margins; tail black, slightly washed with slate-colour externally; lores, sides of face, and ear-coverts black, like the crown; cheeks and entire throat brown, fading off on the breast and under-parts into a paler and more slaty-brown and into white on the lower abdomen and vent; thighs pale ashy-brown; under tail-coverts pale ashy, with broad white central streaks down the feathers; axillaries and under wing-coverts light ashy-grey; quills dusky below, ashy along the inner web: "bill reddish-orange; feet yellow; iris dark brown" (*W. Davison*). Total length 10 inches, culmen 1·1, wing 5·3, tail 3·8, tarsus 1·3.

Adult female. Similar to the male but browner, and not of such a bluish slate-colour, the under surface being of a pale brown, with a few dusky blackish streaks on the throat: "bill orange-yellow; feet yellow; iris dark brown; eyelids orange" (*E. A. Butler*). Total length 9·75 inches, culmen 0·9, wing 4·85, tail 3·3, tarsus 1·3.

Young. More dusky brown than the adults, and with narrow whitish shaft-streaks or triangular spots of buff on the wing-coverts; under surface of body light reddish-buff, mottled with dusky blackish edges to the feathers, which have also triangular mesial spots of buff or shaft-lines of pale buff.

The adult specimens above described are in the Tweeddale and Seebohm Collections, from Khandeish, and the young, from Sambalpur, are in the Hume Collection. The figures in the Plate are drawn from examples in the Seebohm Collection. [R. B. S.]

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MERULA SIMILLIMA (*Jerd.*).

NILGHIRI OUZEL.

Turdus simillimus, Jerd. Madr. Journ. x. p. 253 (1839).
Merula simillima, Blyth, Cat. B. Mus. As. Soc. p. 162 (1849); Seebohm, Cat. Birds Brit. Mus. v. p. 251 (1881); Oates, Faun. Brit. Ind., Birds, ii. p. 124 (1890).
Merula erythrotis, Davison, Ibis, 1886, p. 205; Oates, Faun. Brit. Ind., Birds, ii. p. 126 (1890).

M. rostro et pedibus flavis: suprà schistacea, subtùs schistaceo-brunnescens: pileo dorso concolore, vix nigricante: interscapulio minimè brunnescente, sed dorso reliquo concolore.

This species differs from *M. nigropileus* in having the upper surface nearly uniform, with the head perhaps a trifle darker than the back, but with no pale area on the hind-neck and mantle.

The late Dr. Jerdon, who described the species (*l. c.*) writes as follows:—"I have only observed it on the Neilgherries, in the dense woods of which it is very common, and may be daily heard pouring forth its charming song, especially towards evening and in cloudy weather. It is found alone or in small families. It lives chiefly on fruit of different kinds, especially of the pleasant Brazil cherry, now so abundant in the woods there; also feeds on worms, caterpillars, and other soft insects. I possess a specimen, given me by Major Campbell, 33rd N.I., who shot it on the Pulney hills, which is identical with Neilgherry ones."

The British Museum has a large series of specimens from the Nilghiris, viz. from Coonoor (January, February, August, September), Ootacamund (January to July, September), Khotagherry (June), collected by the late Mr. W. R. Davison, Miss Cockburn, and Major R. G. Wardlaw-Ramsay. Mr. Davison also met with the species on the Brahmaghiri Hills, and specimens obtained by Major Horace Terry in the Palani or Pulney Hills are in the British Museum. Mr. Davison's note on the species (Str. F. x. p. 374, 1883) is as follows:—"Very common on the plateau of the Nilghiris, and extending some little way down the slopes, but in considerably decreased numbers. It also occurs on the Bramaghirris in Coorg, a female I obtained there being undistinguishable from numerous females obtained on the Nilghiris."

On the Palanis Major Horace Terry says that the species is "very common everywhere in the sholas on the top. They commenced breeding in the middle of March, and were still nesting when I left in the middle of June" (Str. F. x. p. 474, 1887).

Mr. C. J. W. Taylor (Str. F. x. p. 459, 1887) states that the species was occasionally seen on the hills of Mysore in the Manzeerabad district, but no specimens have been examined by me from any part of Mysore. Mr. Ogilvie Grant is certainly correct in referring the type of Davison's *M. erythrotis* (Ibis, 1886, p. 205) to the present species, the rufous colour on the face and abdomen being due to a stain. The locality of *M. erythrotis* is uncertain, but is supposed to be the Palghat Hills.

The following notes on the breeding of *M. simillima* are taken from Mr. Oates's edition of Hume's 'Nests and Eggs of Indian Birds,' vol. ii. p. 88:—

"Of the Nilghiri Blackbird, Mr. H. R. P. Carter says:—'At Coonoor, on the Nilghiris, I have found nests of this bird from the 25th of March to the 18th of May, on which latter date a nest was

being built. The nest is always in the fork of a tree or shrub, varying in height from 3 to 20 feet from the ground. I found several in coffee-bushes, one on a tree-fern, others on rhododendron-trees, and one on the Australian acacia. In shape it is hemispherical and open at the top. There is always a foundation of mud, and a superstructure of thin twigs or coarse fibres, and it is lined generally with fine fibres, but sometimes has scarcely any lining.

"'I have found from one to three eggs. In the case of the single egg, the young bird was well developed, and as it was in a tree 20 feet from the ground, it is not likely that any eggs had been taken out. As I found six nests, each containing three eggs, I think that this must be the usual number; at the same time I have been told that a greater number are sometimes laid.

"'This Blackbird builds its nest in a remarkably short time. On one occasion I saw a nest completed in four days. It is just possible that there may have been a portion of a day's work done before I saw it; but even five days is a very short time for so small a bird to complete a nest which must weigh at least $2\frac{1}{2}$ lbs.'"

Mr. Hume adds:—"The nests of this species, of which I owe a magnificent series to my friend Mr. Carter, are always, apparently, very massive structures, containing an inner skeleton of mud, completely hidden from sight by an exterior coating of moss or lichen, or fine or coarse grass-roots, and an interior lining of fine grass-roots. The bird appears to lay a light foundation of dead leaves, lichen, or fern, and on this to build a more or less deep cup on the wattle-and-dab principle—a few coarse grass-roots twisted together as a skeleton, and then thickly plastered with mud or wet mould. The cup thus made is often about $4\frac{1}{4}$ inches in diameter and $2\frac{1}{2}$ deep. It is then covered, externally, to the thickness of one or two inches with whatever materials are nearest at hand, grass or other roots, dry slender ferns, soft green moss, or masses of tree-lichen. The interior of the cup is first lined with rather coarse roots, and then finished off with fine ones. No particle of the clay skeleton is visible in the finished nest, which may average about 7 inches in diameter externally, stands about 4 inches high, and has an egg-cavity some $3\frac{1}{4}$ inches in diameter by 2 inches deep. In all the nine nests now before me the inner earthen framework is present, but in some it extends scarcely more than $\frac{1}{2}$ inch up the sides of the nest, while in others it comes up to within $\frac{1}{4}$ inch of the upper margin. Owing to the different materials used in different localities for the external coating of the nest, these vary much in appearance; but some of them, entirely coated with moss or lichen, are amongst the most beautiful structures that I know. The type of the architecture of the nest, as will be observed, is the same as that of the European Blackbird.

"Dr. Jerdon tells us that he has 'frequently found the nest, made of roots and moss, usually with four eggs, pale blue with dusky brown spots.'

"Mr. W. Davison remarks:—'With the exception of *Pratincola bicolor*, the nest of this species is the commonest at Ootacamund and its immediate vicinity. During April and the earlier part of May every thick shrub is sure to contain a nest, placed in a fork, generally about 12 or 14 feet from the ground. It is a large and very solid structure, composed internally of bits of stick, dead leaves, roots, and moss, within which is a tolerably thick stratum of clay, and within this again fine grass and moss-roots. I think I must have taken a hundred nests in my time. The eggs are normally four, sometimes five, in number, and very variable both as regards colour and form, but the ground-colour is generally a dingy bluish green, thickly mottled and freckled with brownish red.'

"Miss Cockburn, of Kotagherry, notes that 'Blackbirds seldom lay more than four eggs, the ground-colour of which is a light green, with blotches and spots of a light red and brown. They generally build in thick bushes or trees, often on those the branches of which overhang streams of water. I once found a Blackbird's nest built in a bank just in a place a Robin would have chosen. The nest was quite exposed to view, and I frequently saw one of the birds sitting in the nest, while

I rode past. This was quite unlike their general ideas of seclusion. The young brood came to an untimely end. The species lays from April to July.'

"Mr. Rhodes W. Morgan, writing from South India, says :—'This bird breeds on the Neilgherries from March to May, building a large nest of moss, twigs, wool, &c., with a clay cup in it, which is neatly lined with bent-grass and roots. The eggs are three in number, irregularly blotched with reddish brown, the blotches being more numerous towards the larger end, on a pale greenish-blue ground. This Blackbird sings most beautifully in the breeding-season; and they may then be heard at all hours, but especially towards evening, answering one another. Dimensions of an egg 1·25 inch in length by 0·91 in breadth.'

"The eggs are very similar to many varieties of those of the European Blackbird. In shape they are commonly a broad oval, pointed towards one end; but, as in the case of our English favourite, the eggs are sometimes elongated and often perfectly oval, the smaller end being rounded and obtuse. The ground-colour varies somewhat, being sometimes of a beautiful bright blue-green, at others of a dull olive-green, and various intermediate shades occur. They are richly speckled, mottled, and streaked, and at times even boldly blotched, with brighter and duller, deeper and lighter shades of brownish red, not unfrequently underlaid by faint spots and clouds of purplish pink or grey. The markings vary a good deal in extent and frequency, but, in perhaps a majority of the eggs, form a more or less conspicuous confluent cap at the large end. In some eggs all the markings are very fine and minute, laid on, as it were, with a very fine-pointed brush; in others they are coarse and streaky, and occasionally bold, blotchy, and well defined. Specimens occur which could scarcely be separated from varieties of the English Ring-Ouzel's egg. The eggs have usually a slight gloss, and some specimens are highly glossy. As already mentioned, in some specimens secondary markings, small purple clouds and spots, appear to underlie the red-brown blotches. In length the eggs vary from 1·1 to 1·3 inch, and in breadth from 0·82 to 0·93 inch; but the average of thirty-five eggs measured was 1·17 nearly by 0·86 inch."

Adult male. General colour above dark slaty-grey, almost blackish slate-colour; the crown black, but scarcely differing from the back; the hind-neck and mantle scarcely browner; wings and tail black, with external edgings of dark slate-colour; lores and ear-coverts black; under surface of body deep slaty-brown, a little pervaded with chocolate-brown over the cheeks, throat, and breast, as well as the sides of the neck; the abdomen like the breast, and not whitish; under tail-coverts slaty-grey, with only a shaft-line of white; under wing-coverts and axillaries also dark slate-colour. Total length 10 inches, culmen 1·05, wing 5·3, tail 3·8, tarsus 1·3.

Adult female. Rather lighter in colour than the males, and with a somewhat more brownish shade on the head and hind-neck, the under surface of the body decidedly browner than in the male. Total length 9·5 inches, culmen 1·0, wing 4·8, tail 3·6, tarsus 1·25.

The descriptions of the male and female are taken from Ootacamund specimens in the Hume Collection. The figure in the Plate has been drawn from a Nilghiri specimen, procured by Major Bulger, in the Seebohm Collection. [R. B. S.]

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MERULA BOURDILLONI, *Seebohm*.

BOURDILLON'S OUZEL.

Merula kinnisi (nec Blyth), Hume, Str. F. vii. p. 35 (1878).
Merula bourdilloni, Seebohm, Cat. Birds Brit. Mus. v. p. 251, pl. xv. (1881); Oates, Faun. Brit. Ind., Birds, ii. p. 125 (1890).

M. nigricanti-schistacea: pileo dorso concolore: rostro et pedibus flavis: similis *M. kinnisi*, sed major et omninò nigricantior.

Bourdillon's Ouzel was found by the gentleman after whom the species is named in the mountains of Travancore. The type specimen in the British Museum was procured by Mr. Bourdillon at Calathoorpolay Patnas, on the 17th of April, 1880; and in the Hume Collection is another from Mynall in Travancore, shot on the 29th of March, 1877. Mr. Harold Ferguson has also sent a series procured at 7000 feet on the high ridge of mountains in that province. Mr. Bourdillon states that it is "not uncommon in the dense scrub-jungle at the extreme summits of the hills, but it never, he thinks, descends below 3000 feet elevation" (Hume, Str. F. vii. p. 35, 1878).

Major Horace Terry procured specimens of *M. bourdilloni* from Kodikanal and Kukal in the Palani Hills, and these examples are now in the Hume Collection, which also contains specimens of the true *M. simillima* sent from the Palanis by Major Terry (*vide suprà*). He writes:—"I shot a female at Kukal from the nest, on May 18th. Length 9 inches; expanse 12 inches; tail 3·5 inches. The nest, which was placed in a fork of a tree about 15 feet from the ground, was just like that of *M. simillima*, the body of mud lined with fine grass and outside with some coarse grass and roots wound round it, covered all over with green moss, a strongly built, rather shallow cup, 3·5 inches across and 2 inches deep inside, 5 inches across and 4 inches deep outside. It contained one very slightly incubated egg, just like that of *M. simillima*. On the 3rd of June I obtained another nest with the male bird at Kodikanal with two fresh eggs."

Adult male. Similar to *M. simillima*, but much blacker; the head black, but scarcely distinguishable from the back; under surface darker than in *M. simillima*: "bill, feet, and claws bright orange-red; iris dark brown" (*F. Bourdillon*). Total length 10 inches, culmen 1·05, wing 5, tail 3·8, tarsus 1·3.

Adult female. Very dark brown above, with a slight olive-brown shade; the head decidedly browner than the back, as also the sides of the face; the ear-coverts streaked with paler brown shaft-lines; under surface of body umber-brown, becoming greyer on the flanks, thighs, and under tail-coverts; the throat whiter, with a few obsolete streaks of dusky-brown and a broad dusky-brown malar stripe; axillaries and under wing-coverts dark slaty-brown. Total length 9 inches, culmen 1·0, wing 4·5, tail 3·3, tarsus 1·25.

The male described was obtained in Travancore by Mr. F. Bourdillon and is in the Hume Collection in the British Museum, and the female, also in the same Collection, was collected by Major Horace Terry on the Palani Hills. Mr. Seebohm has figured the type, which is in the British Museum and was collected by Mr. F. Bourdillon in Travancore. [R. B. S.]

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MERULA KINNISI, *Blyth*.

CEYLON OUZEL.

Merula kinnisi, Kelaart, MSS.; Blyth, J. A. S. Beng. xx. p. 177 (1851); Seebohm, Cat. Birds Brit. Mus. v. p. 252 (1881); Oates, Faun. Brit. Ind., Birds, ii. p. 124 (1890).
Turdus kinnisi, Gray, Hand-l. B. i. p. 256. no. 3717 (1869); Legge, B. Ceylon, p. 449 (1879).

M. saturatè schistacea: rostro et pedibus flavis: pileo schistaceo, minimè nigro, dorso concolore: interscapulio quoque dorso concolore.

The present species is rather smaller than the representatives of the slaty-grey group of Ouzels which are found on the hills of Southern India. The slaty-grey tint on both the upper and under surface is very clear and distinct. It is not so dark a bird as *M. bourdilloni*, which it otherwise much resembles.

The following account of the habits of *M. kinnisi* is copied from Colonel Vincent Legge's excellent work on the 'Birds of Ceylon':—

"The Blackbird of Ceylon, which bears a great resemblance to our home favourite, is an inhabitant of the entire hill portion of the Kandyan Province, from the loftiest regions down to an elevation of between 2500 and 3000 feet; it is, I am given to understand, likewise found on the uppermost parts of the Morowak and Kolonna Korales, but I have not seen specimens myself from that district. It is very numerous at the Horton Plains, in the wilderness of the Peak, the Nuwara-Elliya district, and in all the forests of the main range. In Haputale, on the Namooni-kuli hills, the Knuckles, and all other ranges where any considerable amount of forest has escaped the woodman's axe it is common. On isolated hills, such as the Allegalla peak, I have found it; but it is rare in such localities. In many of the coffee-districts intersected with wooded patnas, which furnish it with a stronghold, it is a familiar bird, and in the north-east monsoon season appears about the residences of the planters.

"The presence of this songster at Nuwara Elliya is not without interest to the English colonist; its lively though somewhat subdued matutinal song recalls home recollections and memories of the lovely spring time in England, when all nature seems awakened after the slumbers of winter. It frequents a variety of situations, passing, however, most of its existence in thick undergrowth, particularly in the nilloo and elephant-grass scrub. It strays out of the forest into detached copses, umbrageous coffee groves, and about Nuwara Elliya resorts even to the gardens and plantations surrounding the villas of the residents. It is a very shy bird, feeding entirely in the thick cover of the jungle until evening, when the departing sun illumines the borders of the forest; it then sallies out, mounting high into trees and pouring out its song, which is neither so loud nor so full in tone as that of its English congener; it then proceeds by short flights from tree to tree, uttering its call-note of *cluck-onk* until it finds its way back to its accustomed roosting-place. At the break of day it is again abroad, singing before sunrise, and shortly after it retires into neighbouring thickets for the entire day. While searching for its food it gives vent to a very low chirp, which one would imagine came from the throat of the smallest bird; and when alarmed by the sound of an approaching footstep takes refuge into the depths of the scrub with quick hoppings along the ground or short

flights from branch to branch. It is very partial to some fruits in the forest, collecting in considerable flocks in the loftiest trees; and while some greedily pluck the berries from the top branches, others remain in the underwood beneath and reap a harvest on those that fall. In spite of its fruit-eating propensities, however, it is highly insectivorous in diet; and I have seen it scratching in manure at the edge of the forest-paths."

Adult male. General colour above bluish slate-colour, the feathers with blackish centres and slate-coloured margins; wing-coverts and quills black, with distinct edges of bluish slate-colour; tail-feathers black, washed with slate-colour externally; head like the back; sides of face and under surface of body also slate-coloured, the feathers being distinctly edged with this shade; under wing-coverts and axillaries also light slaty-grey: "bill orange-yellow; feet paler yellow; claws yellowish horny; iris pale brown; eyelid orange-yellow" (*W. V. Legge*). Total length 9·2 inches, culmen 0·95, wing 4·5, tail 3·6, tarsus 1·25.

Adult female. Rather browner than the male, being of a brownish slate-colour below. Total length 8·5 inches, culmen 0·95, wing 4·2, tail 3·1, tarsus 1·25.

Young birds differ in the usual way, being mottled with reddish-brown and having shaft-streaks of buff, as well as blackish edges to the feathers.

The male bird described is in the Seebohm Collection. It was obtained by Colonel Legge in September 1875, and is apparently the specimen figured by Mr. Seebohm in the Plate. The female described is one of the typical specimens sent by Dr. Kelaart to the British Museum.

[R. B. S.]

MERULA LUDOVICIÆ, *Lort Phillips*.

SOMALI OUZEL.

Merula ludoviciæ, Lort Phillips, Bull. Brit. Orn. Club, iv. p. xxxvi (1895); id. Ibis, 1896, p. 78, pl. ii.; id. Ibis, 1898, p. 410.

M. schistacea, pileo dorso concolore: subtùs schistacea, gutture nigro: rostro et pedibus flavis.

This interesting species was discovered by Mr. Lort Phillips on his second expedition to Somaliland, and has been named by him after his wife, who accompanied him on his travels in the Goolis Mountains. He writes:—"I was delightfully reminded of our English Blackbird when I first saw an example of this new species. It was early morning, the bushes and grass were glistening with dew, and under a gigantic cedar I caught sight of a dark grey bird with yellow bill and feet, hunting for worms in the truly orthodox manner, whilst on the topmost bough another was pouring forth his morning song. I watched them for some time and then continued my way, as I only had my rifle with me. It was, however, some days before I was able to obtain a specimen, and then I was lucky enough to find a nest containing two eggs in a thick bush, much resembling a box-tree. I also shot both the male and female.

"The nest is a coarsely made structure of small twigs and bark, peeled off in strips and intertwined with the sticks and a few straws. The lining is of dried grass with a few leaves, and there is a little moss on the outside of the nest. The eggs were two in number, of a very delicate type for a Blackbird. The ground-colour is a very pale greenish blue, plentifully sprinkled with tiny spots of rufous, clouding together at the larger end; the underlying markings and spots are faint purplish grey. Axis 1·1 inch, diam. 0·75." (Ibis, 1896, p. 78.)

On his third expedition to Somaliland he obtained some more specimens, and in the 'Ibis' for 1898 (p. 410) he makes the following remarks:—"This Blackbird is confined to the localities where the Giant Cypress (*Juniperus procera*) grows, the berries of which provide its chief food. On the north face of Wagga Mountain, which is covered with a forest of these grand trees, the song of *M. ludoviciæ* may be heard in all directions in the early morning. To the westward, at Darra Ass, some 40 miles distant, is another such forest, where I obtained the first recorded specimens."

Adult male (type of species). General colour above dark slaty-grey with a slight olivaceous tint, the margins to the feathers being of a dull olive-grey; crown of head a little darker than the back; wing-coverts like the back, the median and greater series externally slaty-grey; bastard-wing, primary-coverts, and quills black, edged with slaty-grey, a little more hoary on the primaries; tail-feathers black, the outermost narrowly fringed with white at the tip; sides of face, ear-coverts, and entire throat black; sides of neck and under surface of body light slaty-grey, with narow white shaft-lines on the under tail-coverts; axillaries and under wing-coverts dusky slate-colour, washed with rufous-brown; quills blackish below, ashy on the inner webs: "bill and feet yellow; iris dark brown" (*E. Lort Phillips*). Total length 8·5 inches, culmen 0·8, wing 4·65, tail 3·9, tarsus 1·15.

Adult female. Similar to the male, but rather browner above and lighter slaty-grey below; sides of face and throat brownish-black, the latter with remains of whitish edges to the feathers; under tail-coverts edged with whitish; axillaries and under wing-coverts slaty-grey, edged with dull orange. Total length 8·5 inches, culmen 0·9, wing 4·6, tail 3·8, tarsus 1·05.

The typical specimens have been figured in the Plate, and the descriptions are taken from the examples in the British Museum. [R. B. S.]

MERULA FLAVIPES (*Vieill.*).

BRAZILIAN GREY OUZEL.

Turdus flavipes, Vieill. N. Dict. d'Hist. Nat. xx. p. 277 (1818).
Turdus carbonarius, Licht. Verz. Doubl. p. 37 (1823).
Merula flavipes, Seebohm, Cat. Birds Brit. Mus. v. p. 253 (1881).

M. schistacea: rostro et pedibus flavis: pileo nigro, minimè dorso concolore: gutture et pectore summo nigris: hypochondriis et axillaribus subalaribusque schistaceis. ♀ suprà rufescenti-olivacea, abdomine quoque pallidè griseo: subcaudalibus ochrascenti-brunneis, albido marginatis et medialiter notatis.

The present species is a representative of the section of the genus *Merula* in which the general colour is a beautiful slate-grey, with the head, throat, and upper breast black, in strong contrast to the otherwise grey plumage. There seem to be three or four closely allied forms in this section, depending chiefly on the differences shown in the plumage of the hen birds, for the males vary but little. It is impossible to speak with any certainty as to these different races, as the series of skins in the British Museum has been mostly purchased from dealers, and very few specimens bear any particulars of their capture. A further difficulty in arriving at a correct conclusion is caused by the fact that no collectors have absolutely identified any one pair of birds as having been obtained together. It is therefore almost impossible to assign the females of some of these Grey Ouzels with absolute certainty.

M. flavipes was first described by Vieillot from specimens obtained by Delalande near Bahia, and from the same place came also the type of Lichtenstein's *Turdus carbonarius*, which is therefore a synonym of *M. flavipes*. The British Museum contains a large series of specimens from Bahia, some of them collected by Dr. Wucherer. Mr. Alexander Fry has presented to the same Institution five specimens obtained by him at Rio de Janeiro, and in the Salvin-Godman Collection are examples obtained by Joyner in São Paulo and Rio Grande do Sul. Mr. H. Rogers also procured a specimen in Santa Catarina. Count von Berlepsch records the species as having been obtained by Lund in Minas Geraes and at Mugydas Cruzes in São Paulo (J. f. O. 1873, p. 230). Burmeister notes it from Novo Freibourgo (Th. Bras. iii. p. 125), Prince Max from Rio de Janeiro and Cabo Frio (Beitr. Naturg. Bras. iii. p. 643). Von Pelzeln gives the following localities where the species was obtained by Natterer, viz.:—Rio de Janeiro, May to August; Curytiba, November; Ytarare, April (Orn. Bras. p. 94). Dr. von Ihering states that it is found from Rio Grande do Sul to Bahia, but chiefly on the coast, as it is absent in the greater part of the interior (Rev. Mus. Paul. iii. p. 128).

M. flavipes is therefore apparently confined to Eastern and South-eastern Brazil. The male is distinguished by its grey breast and abdomen, and pure grey back, contrasting with the black head, throat, and upper breast. The female of the Brazilian bird seems to have a more ruddy-olive shade on the upper surface than is shown by the females from Venezuela and Guiana. The abdomen is very light grey, and the under tail-coverts are ochraceous-brown, with whitish tips and centres to the feathers.

Adult male. General colour above dark bluish slate-colour, with indistinct margins of dusky blackish to the feathers of the back; scapulars also bluish slate-colour, but with broader black

margins; wing-coverts and quills black; tail black; crown of head black, extending over the hind-neck to the top of the mantle; sides of face, sides of neck, entire throat and chest black, extending down the middle of the breast; abdomen and sides of body dark slaty-grey, as also the under tail-coverts; thighs black; axillaries and under wing-coverts dark slaty-grey, blacker along the edge of the wing: "bill, feet, and eyelid, as well as the palate, clear yellow; iris greyish brown" (*Neuwied*). Total length 8·5 inches, culmen 0·8, wing 4·5, tail 3·2, tarsus 0·95.

Adult female. General colour above dark ruddy olivaceous-brown, slightly paler and more greyish towards the rump and upper tail-coverts; wing-coverts like the back; bastard-wing, primary-coverts, and quills brown, rather more reddish externally than the back, the secondaries like the latter; tail brown, slightly shaded with olive; sides of face brown like the head, with faint whitish shaft-lines on the ear-coverts; cheeks somewhat more olivaceous-brown, like the under surface of the body, the throat greyer and showing some streaks of dusky-brown triangular spots; centre of abdomen light grey, becoming whiter near the vent; sides of body and thighs more olive-brown; under tail-coverts ashy-brown, with whitish edges and a darker sub-terminal shade; under wing-coverts and axillaries pale orange-buff; quills below dusky brown, shaded with buff along the inner web. Total length 8·8 inches, culmen 0·8, wing 4·35, tail 3·2, tarsus 0·95.

Another female bird in the British Museum is apparently younger, having remains of spots on the greater wing-coverts. It is much more ochraceous-brown below than the one described, especially on the under tail-coverts.

The descriptions of the adult male and female are taken from a pair of birds from Rio de Janeiro, presented to the British Museum by Mr. Alexander Fry. The figure of the male is drawn from a Bahia skin in the Seebohm Collection, and that of the female from a specimen obtained by Younds at Rio de Janeiro and now in the Salvin-Godman Collection.

N.B.—The female is probably the bird called *Platycichla brevipes* by Baird (*cf.* Sharpe, Cat. B. vi. p. 379). Dr. Stejneger has drawn attention to this fact (Proc. U.S. Nat. Mus. v. p. 479); but whether it is the female of *M. flavipes* or of one of the allied races can only be determined by a comparison with the type. [R. B. S.]

MERULA VENEZUELENSIS.

VENEZUELAN GREY OUZEL.

Merula flavipes, auct., pt., ex Venezuela.

♂ similis *M. flavipedi* ♀, sed notæi plumis interdum nigro adumbratis. ♀ tamen diversa: abdomine pallidiore griseo: subcaudalibus griseis, albido medialiter notatis et marginatis, et præcipuè subalaribus et axillaribus clarius aurantiacis distinguenda.

The male of the Venezuela bird is very like that of *M. flavipes*, though occasionally examples show more black overspreading the mantle and abdomen than in that species. This is not often the case, however, and many of the males from the two countries are quite indistinguishable. The females, however, differ considerably from those of *M. flavipes* and *M. polionota*, having a much paler grey abdomen than the latter, and lighter orange under wing-coverts and axillaries. I have seen specimens in Mr. Rothschild's Museum from Merida (*Mocquerys*) and from San Antonio, Cumaná (*Caracciolo*). Some Venezuelan females are, however, not to be distinguished from Roraima birds, and the specific value of these races cannot be said to be established as yet.

Adult male. Similar to the male of *M. flavipes*, but with the black of the head extending over the hind-neck and overspreading the whole of the centre of the abdomen, the feathers of which have black margins; the grey flanks and the under tail-coverts are entirely of a sooty-grey colour. Total length 8·5 inches, culmen 0·75, wing 4·5, tail 3·3, tarsus 1·0.

Adult female. Is very much darker and more olive than the female of *M. flavipes*, and underneath is of a dull ochraceous-brown with buff longitudinal centres to the under tail-coverts; the chin and throat are slightly paler and more ashy than the fore-neck, which is of a dull fulvous-brown; under wing-coverts and axillaries dull orange-buff; centre of abdomen scarcely perceptibly dull ashy. Total length 8·0 inches, culmen 0·75, wing 4·35, tail 3·1, tarsus 0·9.

The descriptions are taken from a pair of Venezuelan birds in the Seebohm Collection.

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MERULA POLIONOTA.

RORAIMA GREY OUZEL.

Turdus flavipes (nec Vieill.), Salvin, Ibis, 1885, p. 198.

♂ similis *M. flavipedi*. ♀ tamen diversa: suprà sordidè cinerascenti-olivacea, uropygio et supracaudalibus clarius cinerascentibus: subalaribus et axillaribus sordidè aurantiaco-fulvis: alis subtùs isabellinis, vix fulvo adumbrato.

Although the males of the Roraima bird scarcely differ at all from Brazilian examples of *M. flavipes*, the females seem to me to be very different. They are much darker and of a dull ashy-olive above, with the rump and upper tail-coverts clearer ashy-grey. The chief difference, however, lies in the colour of the under wing-coverts and axillaries, which are very dull orange-buff, not nearly so clear orange as in the females of the allied forms, and the quill-lining is ashy-isabelline, not tinged with orange as with the hen birds of *M. flavipes* and *M. venezuelensis*.

There is still some doubt as to the precise identification of the females of this group of Ouzels, but if the hens have been properly referred to this Roraima form of *M. flavipes*, I do not see how it can be considered identical with the Brazilian bird. The whole question is still very obscure, and it is doubtful if *M. polionota* will be found to be restricted to Roraima, as a female specimen sent by Mocquerys to the Tring Museum seems to me to be the same as the Venezuelan bird.

Adult male. Similar to *M. flavipes*, but having a very different coloured female. Total length 8·3 inches, culmen 0·7, wing 4·5, tail 3·4, tarsus 1·0.

Adult female. Differs from the female of *M. flavipes* in being dark olive-brown, shading off into slaty-grey on the lower back, rump, and upper tail-coverts; wing-coverts like the back; the bastard-wing, primary-coverts, and quills brown, shaded externally with olive, a little more fulvescent on the outer web of the primaries; tail-feathers dusky brown, with a slight olive shading on the edges; sides of face and ear-coverts dark olive-brown like the crown, with faint whitish streaks along the shafts of the ear-coverts; cheeks, throat, and under surface dusky ochraceous-olive; centre of the breast and abdomen dingy ashy-grey, inclining to white on the vent; under tail-coverts dingy grey, centred with white shaft-lines and whitish bars and margins; chin and upper throat ashy, streaked with spots of dusky brown; under wing-coverts and axillaries dingy ochraceous-brown, slightly shaded with orange-buff; quills ashy-brown below, somewhat lighter ashy along the edge of the inner web. Total length 7·5 inches, culmen 0·8, wing 4·3, tail 3·1, tarsus 0·95.

The descriptions have been taken from a typical pair of birds from Roraima in the British Museum. [R. B. S.]

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MERULA MELANOPLEURA.

TRINIDAD GREY OUZEL.

Turdus flavipes (nec Vieill.), E. C. Taylor, Ibis, 1864, p. 80; Léot. Ois. Trinid. p. 199 (1866); Chapman, Bull. Amer. Mus. N. H. vi. p. 22 (1894).
Merula carbonaria (nec Licht.), Seebohm, Cat. Birds Brit. Mus. v. p. 253 (1881).

♂ similis *M. flavipedi*, sed gastræi nigredine magis extensâ: abdomine nigro: subcaudalibus et hypochondriis schistaceis, nigro adumbratis: interscapulio quoque nigro lavato.

In the British Museum is a skin of a male Grey Ouzel said to be from Trinidad, and formerly in the Seebohm Collection. The locality is probably correct. Léotaud says that the species is only a migrant in Trinidad, and therefore it must be an accidental variety only.

Adult male. Similar to *M. flavipes*, but differing in having the black of the head and hind-neck overspreading the mantle, and, on the under surface, extending over the entire abdomen, so as to leave the flanks dark slaty-grey, intermixed with black, and the under tail-coverts slaty-grey with black tips; under wing-coverts and axillaries black, the latter with slaty-grey bases: "bill, feet, and eyelid bright yellow; iris brown" (*Léotaud*). Total length 8·0 inches, culmen 0·75, wing 4·5, tail 3·1, tarsus 1·0.

The male described and figured is in the Seebohm Collection. The author also identified a female as belonging to this species, but I am not sufficiently convinced of the correctness of this determination to venture to describe it. [R. B. S.]

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MERULA PRITZBUERI (*E. L. & L. C. Layard*).

LIFU OUZEL.

Turdus pritzbueri, E. L. & L. C. Layard, Ann. & Mag. Nat. Hist. (5) i. p. 374 (1878); Tristr. Ibis, 1879, p. 187, pl. v.
Merula pritzbueri, Ramsay, Proc. Linn. Soc. N. S. W. iii. p. 337 (1879); Seebohm, Cat. Birds Brit. Mus. v. p. 256 (1881); Wiglesw. Aves Polyn. p. 38 (1891).

M. rostro et pedibus flavis: notæo et gastræo nigris: subcaudalibus nigris, minimè albo striatis: capite toto colloque, ut et gutture et præpectore lactescenti-grisescentibus.

Specimens of this Ouzel were procured by the late John Macgillivray at Port Resolution, in the island of Tanna, one of the New Hebrides Group, in 1859. One of them was sold to the late T. C. Eyton, and was purchased after his death by the British Museum.

The species, however, was not described till 1878, when Messrs. E. L. and L. C. Layard procured some examples on the island of Lifu in the Loyalty Group, and named it after Admiral De Pritzbuer, the Governor of the islands. It is not found on Maré, where *M. mareensis* takes its place, but is believed to occur on St. Bartholomew (L. C. Layard, Ibis, 1878, p. 271).

M. pritzbueri is very closely allied to *M. tempesti* and *M. poliocephala*, but is distinguished from the latter species by its uniform black under tail-coverts. Like *M. tempesti* and *M. canescens* it has a pale greyish head, neck, and throat, which contrast with the black of the upper and under parts. This grey, however, is of a creamy tinge and is not so ashy as in the allied species, though this refers only to the adult male, as the colour of the females and young birds is very dark, and there is a great deal of difference between them and the old male.

The Messrs. Layard write:—"*M. pritzbueri* is a most shy and wary species, and occupied our native hunter, in his 'nature's garb,' all his time to steal on them. The least snap of a twig or rustle of a dry leaf, and off goes the suspicious quarry! We found males and females in full breeding στοργὴ in the middle of August, and also fully-fledged young birds in the spotted plumage of the well-known European Blackbird. The thighs of *M. pritzbueri* are very stout and powerful, enabling it to progress over the ground with huge bounds. If a bird is only broken-winged, it is pretty sure to escape in the underwood. It is called 'Wathitha,' the Maré bird being known under the appellation of 'Wassassé' on its own island. These Thrushes feed on insects and worms, and are very fond of searching about the deserted native plantations. We never heard them sing, but they invariably utter the well-known metallic *chink-chink-chink* when hurriedly taking flight on being alarmed."

Mr. Layard says:—"On taking a specimen to a resident of the Loyalty Islands, who is staying with my next-door neighbour (his brother-in-law), his wife exclaimed, 'Oh! we eat lots of those; they are splendid "gibier"'; and his servant, a Lifu man, standing by, added, 'Him scrape on ground, all same fowl; we call him "Wassassa."'" This also seems to be the native name of the Maré Ouzel (*vide suprà*).

Adult male. General colour above sooty-black, including the wings and tail; crown of head and

hind-neck, sides of face, throat, and chest whitish-grey; remainder of under surface from the chest downwards sooty-black, the thighs browner; under tail-coverts, under wing-coverts, and axillaries black: "bill and feet orange; iris dark drab-brown; eyelid orange" (*E. L. Layard*). Total length 7·8 inches, culmen 0·85, wing 4·25, tail 2·9, tarsus 1·2.

Adult female. Similar to the male, but with the whitish-grey colour of the head and neck rather darker, and more decidedly shaded with dusky grey towards the chest: "bill and feet orange; iris dark drab-brown" (*E. L. Layard*). Total length 7·8 inches, culmen 0·85, wing 3·95, tail 2·7, tarsus 1·25.

Young male. Dusky brown above, the wings and tail blacker; the feathers of the back and wing-coverts with rufous shaft-stripes and margins; crown of head and neck dull rufous, the shaft-stripes paler, and the edges of the feathers brown; throat and under surface of body rufous, paler on the abdomen, the feathers slightly mottled with dusky blackish tips; under wing-coverts and axillaries dusky blackish: bill, feet, and iris as in the adult (Lifu, Aug. 20, 1878: *E. L. Layard*).

A young male in changing plumage is like the adult, but has the throat blackish, with a few of the whitish-grey feathers interspersed; the head and hind-neck whitish-grey; the breast-feathers with a slight rufous shade on their margins (Lifu, Aug. 20, 1878: *E. L. Layard*).

A female bird has distinct rufous margins to the feathers of the under surface, but the head is dark greyish-brown, very little lighter than the back; the sides of face, throat, and chest are ashy, only slightly contrasting with the blackish breast (Lifu, "not breeding," Aug. 20, 1878: *E. L. Layard*).

The specimens described are the typical ones in the Seebohm Collection. The adult male described and figured in the Plate was obtained by Mr. E. L. Layard at Kepenché, on the Island of Lifu, on the 23rd of August, 1878, and the female was procured on the 19th of the same month; they are both in the Seebohm Collection. [R. B. S.]

MERULA POLIOCEPHALA (*Lath.*).

NORFOLK-ISLAND OUZEL.

Ash-headed Thrush, Lath. Gen. Syn., Suppl. p. 373 (1801).
Turdus poliocephalus, Lath. Ind. Orn., Suppl. p. xliv (1801).
Merula nestor, Gould, P. Z. S. 1835, p. 186.
Geocichla poliocephalus, Bp. Consp. i. p. 268 (1850).
Merula poliocephalus, Ramsay, Proc. Linn. Soc. N. S. W. iii. p. 337 (1879).
Merula poliocephala, Seebohm, Cat. Birds Brit. Mus. v. p. 258 (1881); North, Nests and Eggs Austr. Birds, p. 411 (1889).

M. rostro et pedibus flavis : notæo nigro : gastræo brunnescenti-nigro : subcaudalibus nigris vel latè albo medialiter striatis : capite toto et collo cum gutture toto et præpectore cinerascenti-brunneis.

In the British Museum there is a large series of specimens of this Ouzel from Norfolk Island, and, as far as I can see, only one species is represented. Most of the birds have very distinct white streaks on the under tail-coverts, but there are some which have the latter entirely black. It would almost seem as if this character varied, perhaps with age, and in that case some of the species now separated from *M. poliocephala* may have to be re-united to it. It is certain that in the various species of the present group the specific characters are not of great worth, and the fact that many of Mr. Layard's specimens have been preserved in alcohol renders comparison more difficult, as the colours have faded.

Mr. North, in his work on the eggs of Australian birds, says:—"The Norfolk-Island Ouzel breeds from August until December, constructing a nest similar to other members of the genus *Merula*, an open cup-shaped structure, and placed in banks, the tops of stumps or branches of trees, at a height varying from twelve to sixteen feet from the ground. The eggs vary from two to four in number for a sitting. Dr. Metcalfe has forwarded three specimens taken from different nests: one of them is oval in form, having a pale greenish-grey ground-colour, with reddish-chestnut markings, freckles, and dots of light purple, appearing as if beneath the surface of the shell: length 1·18 × 0·83 inch; another specimen (B) inclines to an elongate oval in form, and has a light isabelline ground-colour, with irregular-shaped chestnut markings, and nearly obsolete freckles and dots of light purple: length 1·21 × 0·82 inch; (C) is an elongate oval of a pale green ground-colour, almost obscured by numerous markings of chestnut-brown, thickly and uniformly dispersed over the surface of the shell: length 1·19 × 0·8 inch."

Adult male. General colour above and below black, including the wings and tail; under tail-coverts black; under wing-coverts smoky-black; crown of head and neck all round, sides of face, throat, and fore-neck light ashy-brown, the head slightly darker and forming a faint cap: "bill and feet orange; iris drab" (*E. L. Layard*). Total length 8·4 inches, culmen 0·9, wing 4·6, tail 3·3, tarsus 1·2.

Adult female. Similar to the male, but a little duller and browner in colour, and having the under surface of the body slightly washed with rufous. Total length 7·8 inches, wing 4·3.

The male and female described were procured on Norfolk Island by Mr. Brenchley in June 1865, and are in the British Museum. The latter is in the Seebohm Collection, and has been figured in the Plate, along with a male procured by Mr. Brenchley on the same occasion.

[R. B. S.]

MERULA TEMPESTI (*Layard*).

TAVIUNI OUZEL.

Turdus tempesti, E. L. Layard, P. Z. S. 1876, p. 420; Tristram, Ibis, 1879, p. 189, note.
Merula tempesti, E. L. Layard, Ibis, 1876, p. 392; Seebohm, Cat. Birds Brit. Mus. v. p. 257 (1881); id. P. Z. S. 1890, pp. 666, 668; Wiglesw. Abhandl. k. Mus. Dresd. 1890–91, no. 6, p. 39 (1892).

M. nigra: rostro et pedibus flavis. Similis *M. poliocephalæ*, sed gutture et præpectore magis grisescentibus distinguenda.

This Ouzel is only known from the island of Taviuni, in the Fiji group. It is closely allied to *M. poliocephala* from Norfolk Island, and is scarcely to be distinguished from that species. It is, in fact, so like the last-named bird that it can only be separated by its lighter ashy-grey throat and chest, the paler ashy colour apparently extending lower over the fore-neck than in *M. poliocephala*. The bill in *M. tempesti* seems to be constantly larger than in the latter species. So similar is *M. tempesti* to its Norfolk Island representative that Mr. Seebohm actually referred one of the specimens from Norfolk Island collected by Mr. Brenchley to *M. tempesti* in the 'Catalogue of Birds,' believing that some mistake had been made in the registering of the specimen. Although, after the custom of the British Museum at that time, the original label of Mr. Brenchley's had been destroyed, and another one tied on to the specimen, there is no reason to suppose that the locality had been wrongly entered on the label. When Mr. Seebohm wrote, few specimens of *M. poliocephala* were in this country; but the Museum now possesses a fine series, and the specimen obtained by Mr. Brenchley is absolutely identical with others sent from Norfolk Island.

Mr. Tempest informed Mr. Layard that he found this Ouzel in the forest at the south end of Taviuni, at Selia Levu, Vuna Point, scratching under the bushes for worms and insects. It has the same metallic chattering note as the European bird, but Mr. Tempest says that he never heard it sing.

Adult male. General colour above black, including the wings and tail; crown of head and hind-neck brown; sides of face, throat, and chest light ashy-brown; remainder of under surface of body black, including the under tail-coverts; thighs brown; under wing-coverts and axillaries dark brown: "bill and feet rich orange; iris dark brown" (*E. L. Layard*). Total length 7·6 inches, culmen 0·95, wing 4·15, tail 2·75, tarsus 1·3.

Adult female. Similar to the male, but with the head and neck dark brown, not much lighter than the back; sides of face, throat, and chest a little lighter brown, but not so pale as in the male; remainder of under surface of body black, including the under tail-coverts: "bill and feet yellow; iris greenish-yellow" (*Liardet*). Total length 7·8 inches, culmen 0·95, wing 4·2, tail 2·75, tarsus 1·4.

Young. Similar to the adult female, but with rufous shaft-lines to the feathers of the upper surface; under surface of body blackish, with rufous margins to the feathers.

The description of the male and the figure in the Plate are taken from the typical specimen in the Seebohm Collection, and the female described and figured is in the Salvin-Godman Collection.

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MERULA ALBIFRONS, *Ramsay.*

ERROMANGA OUZEL.

Merula albifrons, Ramsay, Proc. Linn. Soc. N. S. Wales, iii. p. 336 (1879); E. L. & L. C. Layard, Ibis, 1881, p. 137; Seebohm, Cat. Birds Brit. Mus. v. p. 258 (1881); Wiglesw. Abhandl. k. zoöl. Mus. Dresden, 1890–91, p. 38 (1891).

M. rostro et pedibus flavis : nigra : subcaudalibus albo striatis : pileo et collo undique albidis.

This doubtfully distinct species was described by Dr. E. P. Ramsay from Erromanga, one of the southernmost islands of the New Hebrides group. No specimen has been sent to Europe from this locality, and it is therefore difficult to judge whether the species is distinct. Seebohm (*l. c.*) says :—"It is doubtful whether it is more than subspecifically distinct from *M. pritzbueri*, which varies considerably in the colour of the head, neck, and chest."

Mr. E. L. Layard and his son Leopold write as follows concerning the species (*l. c.*) :—"We have not had an opportunity of seeing a skin of this bird; but in spite of Mr. Ramsay's stating that he has compared it with an *M. pritzbueri*, we cannot help thinking the two are identical, and that what he has taken for a discoloration of the 'white' on the head, neck, and chest from the alcohol in which the specimen was placed, is in reality the proper colour, and that the 'pure white feathers on the chest,' and the 'few white-tipped feathers on the abdomen,' indicate that the typical example was suffering from albinism.

"In very old specimens of our *M. pritzbueri* the colour fades out to nearly white. Further, we know that this species ranges to Tanna, whence L. L. brought the palest-capped bird we have yet seen. Now, Tanna is in full sight of, and very near to, Erromanga: what more likely than that the species should extend thither, though proximity is not a sure cause, as witness the fact that this bird is not found either on New Caledonia or the still nearer island, Maré, being replaced on the former by *M. xanthopus*, Forst., on the latter by *M. maræensis*, Layard & Tristram. Another thing also strikes us. Mr. Ramsay identifies an *Erythrura* sent from Erromanga as *E. cyaneovirens*, Peale. This latter is a Samoan species, and, for aught we yet know, confined to that group of islands. Has Mr. Ramsay not mistaken it for our *E. cyaneifrons, which also is found in Tanna*, though, like the *Merula*, originally procured in, and described from, Lifu. We cannot recollect any land-bird common to Fiji and the New Hebrides, *much less any Samoan* species; but there are several examples of Loyalty-Islands and New-Caledonian species being found in both localities. Of course, not having actually seen specimens, these remarks are only suggestions." [R. B. S.]

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MERULA CANESCENS, *De Vis.*

GOODENOUGH-ISLAND OUZEL.

Merula canescens, De Vis, Rep. Brit. New Guinea, 1894, p. 7.

M. rostro et pedibus flavis: nigra: subcaudalibus nigris, minimè albo striatis: capite, gutture et præpectore grisescenti-cinereis: cervice postica et colli lateralibus albidioribus.

This species, which constitutes another race of the group of *T. pritzbueri* and *T. tempesti*, differs from both of the latter in the tint of the head and throat, which is of a light ashy grey, deepening on the fore-neck, and becoming whiter on the sides of the neck and round the hind-neck.

It was discovered on Goodenough Island, in the Louisiades, by Sir William McGregor, and the two specimens then obtained are the only ones at present known.

Adult. General colour above black, including the wings and tail; crown of head and hind-neck, sides of face, throat, and chest hoary grey, somewhat shaded with dusky grey on the crown and throat; under surface of body from the fore-neck downwards black, including the under tail-coverts, under wing-coverts, and axillaries; quills dusky blackish below. Total length 8 inches, culmen 0·9, wing 4·65, tail 3·4, tarsus 1·3.

Another specimen has the crown more clouded with dusky grey, and the grey confined to the throat. On the feathers of the under surface are remains of rufous margins. This individual is probably the adult female or a somewhat younger bird than the type. Total length 7·5 inches, culmen 0·9, wing 4·25, tail 2·9, tarsus 1·25.

The descriptions and the figures in the Plate are taken from the typical examples, which Mr. De Vis very kindly sent to England for the purposes of the present work. [R. B. S.]

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MERULA PAPUENSIS, *De Vis.*

PAPUAN OUZEL.

Merula papuensis, De Vis, Rep. Brit. New Guinea, App. p. 112 (1890).

M. major: nigra: rostro et pedibus flavis: pileo nigro, dorso concolore, et gutture brunneo distinguenda.

This species was discovered by Sir William McGregor in the Owen Stanley Mountains in South-eastern New Guinea. It is a representative of the group of Oceanic Ouzels in which the body is black and the head and neck somewhat lighter in colour, but it is a larger bird than *M. poliocephala* and its allies, and approaches in size *Merula merula* of Europe. It finds, however, its nearest ally in *M. thomassoni* of Luzon. Between *M. papuensis* and *M. thomassoni* there is remarkably little difference in colour, but in the New Guinea bird the lighter brown shade, which separates the head and throat from the black of the underparts, does not extend beyond the lower throat. These portions of the body are rather more ashy and are not of such a chocolate-brown tint as in *M. thomassoni*. There is, moreover, no difference between the colour of the head and the back, which are alike black.

The typical specimen of *M. papuensis* was obtained by Sir William McGregor in the Owen Stanley Mountains, in South-eastern New Guinea. Specimens have since been procured on Mount Victoria, and some of these are in the collection of the Hon. Walter Rothschild.

The adult male is black, with the head like the back and not paler in colour as in *M. thomassoni*. The throat and fore-neck are distinctly browner, but this lighter colour appears to be limited to the lower throat and does not extend over the fore-neck as in the Luzon species. Total length 9 inches, wing 5·1, tail 3·75, tarsus 1·3.

Adult female. Similar to the male, but with rufous edgings to the feathers of the under surface; the lighter throat is not so pronounced as in *M. thomassoni*. Total length 9 inches, culmen 0·95, wing 4·9, tail 3·6, tarsus 1·35.

Young. Black above, with rufous shaft-streaks to the feathers; under surface of body rufous, with large black spots at the end of the feathers and with pale shaft-streaks; sides of the body black, broadly streaked with rufous.

The male described is from Mt. Victoria, in British New Guinea, and the female from the Owen Stanley Mountains, with no exact indications of the particular habitat. Both are in the British Museum. Mr. De Vis was so good as to send over to England the type of the species for the use of Mr. Seebohm's 'Monograph,' and the figure has been drawn from it by Mr. Keulemans.

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MERULA THOMASSONI, *Seebohm.*

THOMASSON'S OUZEL.

Merula thomassoni, Seebohm, Bull. Brit. Orn. Club, iii. p. li (1894); Ogilvie Grant, Ibis, 1894, p. 509.

M. major: nigra: rostro et pedibus flavis: capite colloque saturatè chocolatino-brunneis: pileo quam notæum brunnescentiore.

Like the New-Guinea Ouzel (*M. papuensis*) this species undoubtedly belongs to the section of pale-headed Oceanic Thrushes, of which *M. poliocephala* and *M. pritzbueri* are the best-known representatives. Like *M. papuensis*, however, it is larger than the Oceanic Ouzels, and more approaches in size our Common Blackbird of Europe.

The present species was discovered in the highlands of the island of Luzon by Mr. John Whitehead, and it is a remarkable fact that a species of *Merula* from the mountains of this Philippine island should be so like *M. papuensis* from the mountains of South-eastern New Guinea as to be scarcely distinguishable.

Mr. Ogilvie Grant compared the series of *M. thomassoni* with the type of *M. papuensis*, which Mr. De Vis had kindly sent to England to be figured in the present work, and which was in the British Museum for some weeks. Mr. Grant's comparison of the plumages of the two species shows that they differ but little, and the principal points in his diagnosis of *M. papuensis* were the white vent and the lighter colour of the under surface. *M. papuensis* is also a slightly larger bird than *M. thomassoni*, but is scarcely $4\frac{1}{2}$ inches longer (14·0), as Mr. Grant, from an apparent *lapsus calami*, would make out.

The characters of the white vent and the blackish under surface do not hold good in a large series, and since Mr. Grant wrote about the two species, the British Museum has acquired some specimens of *Merula papuensis* from Mt. Victoria. I find that the differences between it and *M. thomassoni* are very slight. The chocolate-brown colour of the throat is more plainly contrasted in the Luzon species, and extends further over the fore-neck, while in *M. papuensis* it does not seem to go below the lower throat. The head, too, is rather browner, and forms more of an indistinct cap than is seen in *M. papuensis*.

Adult male. General colour above glossy coal-black, including the wings and tail; crown of head and hind-neck, sides of face, throat, and chest dark brown, contrasting, however, with the rest of the body; under surface, from the chest downwards, glossy black, including the thighs; under tail-coverts black, with distinct white shaft-streaks; under wing-coverts and axillaries black; quills blackish below. Total length 10 inches, culmen 1·0, wing 4·85, tail 3·8, tarsus 1·3.

Adult female. Like the male, excepting that the brown head and throat are not so distinctly indicated from the back and breast; the throat is scarcely lighter than the rest of the under surface, which shows traces of rufous margins to the feathers. Total length 9 inches, culmen 0·95, wing 4·4, tail 3·2, tarsus 1·25.

The female of *M. papuensis* is uniform below, with dull rufous edges to the feathers as in

M. thomassoni, but there does not seem to be any exact definition of the light throat as there is in the latter species.

The specimens described were all collected by Mr. John Whitehead in Luzon and are now in the British Museum. The male in the Seebohm Collection is from North Luzon, and the same specimen is figured in the Plate. The female described is from the Benquet district, and the figure of the female has been taken from a bird in the Seebohm Collection from North Luzon.

[R. B. S.]

MERULA BICOLOR, *Layard.*

KANDAVU OUZEL.

Merula bicolor, Layard, Ibis, 1876, pp. 153, 392 ; Seebohm, Cat. Birds Brit. Mus. v. p. 256 (1881).
Merula ruficeps, E. P. Ramsay, Pr. Linn. Soc. N. S. W. i. p. 43 (1876); Seebohm, P. Z. S. 1890, p. 668 ; Wiglesw. Aves Polyn. p. 38 (1891).
Turdus bicolor, Layard, P. Z. S. 1876, pp. 492, 505.

M. rostro et pedibus flavis : nigra : pileo cum collo, gutture et præpectore lætè cinnamomeis.

Of all the Ouzels of Oceania this is perhaps the most distinct. It has the light head and neck of the Oceanic species of *Merula*, but these are rufous, contrasting with the black plumage, so as to render the species easily recognizable.

In the 'Catalogue of Birds' Mr. Seebohm has recognized Mr. Layard's specific name of *bicolor* for this species, but afterwards, in 1890, he called it *Merula ruficeps* of Ramsay, and in this he is followed by Mr. Wiglesworth. He was, however, apparently led to the conclusion that Layard's name deserved the priority, for I find that he had lettered the Plate for the present work *Merula bicolor*. There can, I think, be no doubt that this view is the correct one, confirmed as it is by the following note of Mr. Layard's in the 'Ibis' for 1881, p. 171. Referring to an error in the identification of a specimen of *Pachycephala* from Kandavu which had been obtained by his "old servant Pierce," Mr. Layard continues:—"The same sort of error seems to have occurred in the *Merula* from the same locality, which I pointed out and labelled as *M. bicolor*, Layard, *having expressly sent Pierce to Kandavu to procure it for Mr. Ramsay*, but which the latter, ignoring my label and information, has renamed *M. ruficeps* (Proc. Linn. Soc. N. S. Wales, i. p. 43). In the same paper *Vitia ruficapilla*, Ramsay, is described. This I *also labelled as having been sent home to Dr. Finsch*, who was then describing it in Europe under the name of *Drymochera badiceps*."

Nests of this species are in the Hamburg Museum and are described by Mr. A. Nehrkorn as follows (J. f. O. 1879, p. 405):—"The material of the nest is of fibrous roots and dry leaves, especially in the cup, which is lined with them. One nest contained lancet-shaped fern-leaves of a kind which had the spores on the under surface. The measurements were: height 85 mm. ; depth of cup 40 ; entire breadth 155 ; breadth of cup 90 mm. Another was placed on the base of a fern-tuft, and was made of moss, roots, and plant-stems, without any exterior decoration: height 130 mm.; depth of cup 40 ; entire breadth 133 ; breadth of cup 80 mm. The eggs are very like those of *T. vitiensis*, and measure 27 × 21 mm."

Adult male. General colour above black, including the wings and tail ; crown of head and hind-neck, sides of face, throat, and chest pale cinnamon-rufous ; remainder of under surface from the chest downwards black ; thighs brown ; under tail-coverts black ; under wing-coverts and axillaries brown: "bill and feet yellow" (*E. L. Layard*). Total length 6·8 inches, culmen 0·85, wing 4·1, tail 2·65, tarsus 1·25.

The specimen described and figured is the type in the Seebohm Collection. [R. B. S.]

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MERULA OLIVATRA, *Lafr.*

OCHRE-BREASTED OUZEL.

Merula olivatra, Lafr. Rev. Zool. 1848, p. 2; Seebohm, Cat. Birds Brit. Mus. v. p. 272 (1881).
Turdus olivater, Scl. P. Z. S. 1859, p. 333.

M. gastræo lætè ochrascenti-brunneo: pileo et gutture toto nigris: notæo olivascenti-brunneo: rostro flavo: pedibus rufescenti-brunneis.

Of this Ouzel, which is apparently confined to Venezuela, very little is known. It was originally described from Caracas, and specimens from this locality are in the Salvin-Godman, Sclater, and Seebohm Collections in the British Museum. The Salvin-Godman Collection also contains an example from Valencia, where it was obtained by Mr. A. Goering. Sallé states that he met with the species between Guayra and Caracas (Sclater, P. Z. S. 1859, p. 332). Although Lafresnaye records its range as extending to Bogotá (*l. c.*), the species has not occurred in recent Colombian collections.

Merula olivatra belongs to a very distinct section of the Black-headed Ouzels, and, with the exception of *M. roraimæ*, does not seem to have any close ally. The olive back, ochraceous under surface, combined with the black head and throat, present a combination of colours which readily distinguishes the species.

Adult male. General colour above dark olive-brown, rather lighter on the hind-neck and upper mantle; wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish-brown, externally olive-brown, the innermost secondaries like the back; tail-feathers blackish-brown, slightly washed with olive on the margins; crown of head and nape, sides of face, and centre of fore-neck black; base of chin white; sides of fore-neck and remainder of under surface of body ochraceous-brown, a little darker and more olive on the sides of the body, thighs, and under tail-coverts, the latter with narrow whitish tips; under wing-coverts and axillaries like the breast; quills dusky below, ashy along the inner webs: bill yellow; feet reddish-brown (in skin): "iris brick-red" (*A. Sallé*). Total length 8·5 inches, culmen 0·95, wing 4·45, tail 3·3, tarsus 1·15.

Another specimen, marked "male" by Dr. Sclater, is rather more earthy-brown below.

The descriptions are taken from Caracas specimens in the Sclater and Salvin-Godman Collections. The figure is drawn from an example in the Seebohm Collection, also from Caracas.

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MERULA RORAIMÆ (*Salvin & Godman*).

RORAIMA OUZEL.

Turdus roraimæ, Salvin & Godman, Ibis, 1884, p. 443.

M. gastræo cinnamomeo-fulvo : pileo nigro : gutture fuscescente, nigro latè striato : rostro et pedibus flavis.

This species is somewhat allied to *M. olivatra* of Venezuela, but is nevertheless very distinct from that species. It is a much darker bird and shows a decided difference in the colour of the underparts, as may be seen by the figures and descriptions of the two species. In *M. roraimæ* the breast is much darker and of a more cinnamon-buff colour, lightening on the abdomen; the throat is not black and well-defined as in *M. olivatra*, but is dusky brown, and this colour gradually shades off on the fore-neck into the cinnamon-buff colour of the rest of the under surface of the body.

The Roraima Ouzel is one of the many new species discovered by that excellent naturalist, the late Henry Whitely, in British Guiana, and the British Museum possesses a large series of specimens obtained by him in that country, in August and September 1883, when he met with the species on Mt. Roraima at an elevation of 5000–6000 feet. Dr. J. J. Quelch and Mr. F. V. McConnell also obtained it on Roraima, and a specimen procured by Whitely on the River Carimang, in December 1885, is in the Salvin-Godman Collection. It is probable, therefore, that the species nests in the higher parts of Roraima and descends to the lower elevations after the breeding-season.

Adult male. General colour above dark olive-brown, a little more dingy on the mantle and back; wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish, externally edged with darker olive, the inner secondaries entirely dark olive, like the back; tail blackish; crown of head and nape and sides of face black; entire throat and fore-neck dusky brown, shading off into dull cinnamon-buff on the breast, becoming a little lighter on the abdomen and vent; the throat obscured by large longitudinal spots of black; sides of body and thighs darker and more dusky olive; under tail-coverts dusky olive-brown, with pale cinnamon edges; under wing-coverts dusky olive-brown, with pale rufescent edges; quills below dusky, more ashy along the inner webs: bill yellow; feet yellow or yellowish-brown. Total length 9·5 inches, culmen 1·05, wing 4·9, tail 3·6, tarsus 1·3.

Adult female. Lighter olive-brown than the male, the head dusky blackish, only a little darker than the back; throat and fore-neck dusky olive-brown, the upper throat obscured by blackish streaks; centre of breast and abdomen ochraceous-buff, becoming paler towards the vent; sides of body dark ochraceous-brown; under wing-coverts dusky, edged with ochraceous-buff: bill dark brown, horny yellowish towards the tip. Total length 9 inches, culmen 1·0, wing 4·75, tail 3·5, tarsus 1·25.

Young. Dark olive-brown, with the head blackish; the feathers of the upper surface mesially streaked with shaft-lines of buff, and the wing-coverts with triangular rufous spots at the ends of the feathers; under surface of body ochraceous-rufous, mottled with black

bars to the ends of the feathers, especially on the throat and chest; sides of body olive: bill blackish.

The male described is from the Carimang River, in the Salvin-Godman Collection, and the female is from Roraima, in the Seebohm Collection, while the young bird described is also in the Salvin-Godman Collection from Roraima (5000 feet). [R. B. S.]

MERULA EURYZONA, *Du Bus.*

COLOMBIAN CHESTNUT OUZEL.

Merula euryzona, Du Bus, Esq. Orn. pl. xxxiv. (1845); Seebohm, Cat. Birds Brit. Mus. v. p. 266 (1881).
Turdus fulviventris, Scl. P. Z. S. 1857, p. 273.
Turdus euryzonus, Scl. Cat. Amer. B. p. 2 (1862).

M. rostro et pedibus flavis: suprà saturatè schistacea: pectore aurantiaco-castaneo: hypochondriis minimè nigro maculatis: præpectore cinerascente: gutture nigricante.

This species, which resembles some of the Old-World Ouzels, especially *Merula protomomelæna*, is an inhabitant of Colombia and Ecuador. From the last-named species it differs chiefly in having a less extent of black on the throat, which is followed by an ashy-grey fore-neck; otherwise the two species are remarkably alike and certainly belong to the same section of the genus *Merula*, though inhabiting such widely different areas.

The Colombian Chestnut Ouzel is a very rare bird in collections. The specimens in the British Museum consist of an example from Bogotá, the type of *Turdus fulviventris*, another from Pamplona obtained by Mr. Claude W. Wyatt, and specimens from Jima and San Lucas in Ecuador, collected by the late Clarence Buckley. Mr. Wyatt writes (Ibis, 1871, p. 320):—"We only met with this rare Thrush in one locality, in the dense forest on the summit of the mountain-chain between the Magdalena and Ocaña. There, however, it was not an uncommon bird, but, owing to the density of the vegetation, it was difficult to obtain specimens. We often saw it sitting on the bough of some tree within a few yards of us; but there was no chance of finding it if we shot it. Locality Alto. Altitude 5000–6000 feet."

Adult. General colour above dark slaty-grey, with a slight olive tinge; wing-coverts like the back, the bastard-wing, primary-coverts, and quills blackish, externally dark slaty-grey; tail black; crown of head and nape black, forming a cap; sides of face also black as well as the throat, the latter slightly mottled with ashy bases to the feathers; lower throat and fore-neck dark ashy-grey, tinged with olive; remainder of under surface of body deep chestnut; the thighs, lower flanks, and under tail-coverts dark ashy, the former tinged with olive, the coverts faintly edged with rufous and having narrow shaft-lines of buff; under wing-coverts and axillaries deep chestnut; quills dusky below, ashy along the inner webs. Total length 9·5 inches, culmen 1·05, wing 3·35, tail 3·8, tarsus 1·35.

The description has been taken from a Bogotá specimen in the Sclater Collection (type of *T. fulviventris*). The specimen figured is from Jima in Ecuador, in the Salvin-Godman Collection.

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MERULA CASTANEA, *Gould.*

GREY-HEADED CHESTNUT OUZEL.

Merula castanea, Gould, P. Z. S. 1835, p. 185 ; Seebohm, Cat. Birds Brit. Mus. v. p. 259 (1881) ; Oates, Faun. Brit. Ind., Birds, ii. p. 128 (1890).
Turdus rubrocanus, Hodgs. Icon. ined. in Brit. Mus., Passeres, pl. cliv. no. 575 ; id. in Gray's Zool. Misc. p. 83 (1844).
Turdus castaneus, Gray, Cat. Mamm. &c. Nepal pres. Hodgs. p. 81 (1846).
Geocichla castanea, Bp. Consp. i. p. 268 (1850).

M. castanea : alis caudâque nigris : rostro et pedibus flavis : pileo et collo undique pallidè cinerascentibus : abdomine albido, plumis basin versùs nigris.

The Grey-headed Chestnut Ouzel, as I prefer to call this bird, since it indicates the chestnut-coloured group to which the species belongs, is found throughout the Himalayas, from Kashmir to Assam. The specimens from the Eastern Himalayas are a shade darker than those from the more western localities. Mr. Oates (Faun. Brit. Ind., Birds, ii. p. 128) gives the range as from Murree to Sikhim and the Garo Hills, but it is not only found in Kashmir, but breeds there. The above-named author thinks that it probably lives during the summer months in Central Asia and Eastern Thibet, but he rightly adds :—" This distribution has not, however, been confirmed " : nor, in my opinion, is it ever likely to be, as this Chestnut Ouzel, akin to our European Ring-Ouzel in its way of nesting, is a thoroughly Himalayan species, and it is scarcely probable that it will ever be found to occur outside this area. It breeds in the higher ranges, and descends to the lower valleys in the winter.

According to Colonel Unwin, this Thrush is found in summer at Gulmarg in Kashmir, and he says that he has heard it " singing at Dandwár in early April, while the snow yet lay deep in the forests. It breeds in May and June, often placing its nest in the lower branches of a ' Budil ' fir-tree (*Abies webbiana*), laying four or five eggs of a greenish blue, thickly mottled with brown. It is fairly common, especially in the hills on the south and south-east side of the valley. The song is generally uttered in the evening, as the bird sits on the top of some small fir-tree, and is very charming, being the nearest Himalayan resemblance to the note of our English Song-Thrush." (Lawrence's ' Valley of Kashmir,' p. 152.)

Mr. J. Davidson, in his account of a visit to Kashmir, says :—" We saw pairs of this bird at Gund, and also at Sonamurg. It must be a very early breeder, as we shot young flying on the 28th day of May. We obtained also several nests with eggs or small young during May and June ; one of these was in the face of a rock on a steep hill, and the others were from three to seven feet from the ground on stunted trees ; they were composed of dead leaves and grass, lined with mud, and then neatly lined with fine grass-roots. The number of eggs or young was either three or four." The Hume Collection contains a specimen obtained at Ruttum Pir in May.

Dr. Stoliczka (J. A. S. Beng. xxxvii. pt. 2, p. 35) states that this Ouzel visits Kotegurh in the winter ; but it must also nest there, as recorded by Mr. Hume (*vide infrà*).

Near Murree it likewise breeds, the nest having been found by Colonel C. H. T. Marshall. Capt. Rattray (J. Bomb. N. H. Soc. x. p. 630, 1897) also records it as nesting in the same portion of

the Himalayas. Colonel Marshall has further observed the species in the Chamba State (Ibis, 1884, p. 414).

The Hume Collection contains specimens from Masuri, Naini Tal, and Almora, and Hodgson met with the species in Nepal. From Native Sikhim, Mandelli obtained several specimens, and it is also found in Sikhim proper. Here Dr. Jerdon (B. Ind. i. p. 526) says it is not very common, and found in winter only, frequenting open forest. Mr. Stuart Baker (J. Bomb. N. H. Soc. ix. p. 286, 1897) states that it is "a not uncommon visitor to North Cachar during the winter, descending to the level of the plains." Colonel Godwin-Austen met with it in the Jura Range of the Garo Hills (J. A. S. Beng. xxxix. pt. 2, p. 268, 1870), and a specimen in the British Museum, obtained by Dr. Griffith and recorded as from Afghanistan (!) in the old 'Catalogue of the E. I. Co.'s Museum' (i. p. 197), was probably obtained by that excellent collector somewhere in Assam or in the Khasia Hills. Mr. Hume did not meet with the species in Manipur (Str. F. xi. p. 129, 1888).

Captain Rattray (*l. s. c.*) says that the nest was found by him near Murree on the 23rd of May, 1896, on the bank at the foot of a high rock. It contained two eggs, very hard set. The nest was $6\frac{1}{2}$ inches in diameter and 4 inches in height; it was composed of thin twigs and a good deal of moss lined with fine grass-stems. The eggs were like those of *Merula boulboul*, but lighter in colour. Dimensions $1{\cdot}0 \times 0{\cdot}8$.

The following notes on the nesting of the species are taken from Mr. Oates's edition of Hume's 'Nests and Eggs of Indian Birds' (ii. p. 92, 1890):—

"Very little is known of the breeding of the Grey-headed Ouzel. A nest containing five eggs was taken on the 20th April near Kotegurh, and Colonel C. H. T. Marshall took a nest at Murree. The Kotegurh nest was placed in a bank, was 6 inches in diameter and 4 in height, composed of moss, with a good deal of dead fern in the base of the nest, and only a little earth, and lined with fine grass. The cavity was about 3·5 inches in diameter, and 2·75 inches in depth.

"From Murree Colonel C. H. T. Marshall writes:—'Two nests in banks, in the beginning of June; eggs very similar to those of *M. boulboul*, but somewhat larger, being 1·25 by 0·8 inch. Captain Cock got two nests in the Sindh Valley, Kashmir. It is peculiar that this species always breeds in banks. All the Meruline birds breed from about 5000 to 7000 feet up.

"'I believe some people say that *Merula albocincta* and *M. castanea* are identical. I therefore send a pair of birds of the latter, shot off the nest in full breeding-plumage, which may elucidate the matter. They must have two hatches in the year, as on the 20th April I got a nest with four eggs just ready to hatch, which must have been laid at the end of March. The nest, too, was at an elevation of nearly 7000 feet.'

"The eggs of this species appear to vary very much. What I take to be the typical egg is a somewhat lengthened, at times more or less pyriform, oval. A pale green ground, with very little gloss, thickly and boldly mottled and freckled all over with brownish-red and pinkish purple. In another type nowhere is more than a pin's point of the ground-colour visible, the whole surface being excessively minutely freckled and speckled with brownish red, underlaid by faint reddish-purple clouds and stains.

"In length they vary from 1·1 to 1·35 inch, and in breadth from 0·75 to 0·88 inch. Only eight eggs are measured, five from Kotegurh and three from Sonamurgh taken by Captain Cock."

Adult male. General colour above vinous-chestnut, a little deeper on the mantle; scapulars chestnut; wings and tail black; head and neck ashy-grey, becoming paler and more whitish-grey on the hind-neck; lores, sides of face, and ear-coverts ashy-grey, the latter with narrow whitish shaft-lines; throat and fore-neck, as well as the sides of the neck, whitish-grey; remainder of the under surface of body rich vinous-chestnut, the thighs dark ashy, with blackish bases; lower abdomen blackish, the feathers broadly tipped and centred with white, especially near the vent; under tail-coverts

black, with longitudinal wedge-shaped centres of white; axillaries and under wing-coverts dusky blackish, edged with chestnut; quills sepia-brown below, a little more ashy on the inner webs: "bill and feet yellow; iris dark brown; eyelid yellow" (*T. C. Jerdon*). Total length 10·5 inches, culmen 1·0, wing 5·55, tail 3·75, tarsus 1·25.

Adult female. Similar to the male, but much duller chestnut, with the wings and tail browner; crown of head and neck darker ashy-grey than in the male, the crown and sides of face being dusky greyish-brown; throat dull ashy, with a few dusky brown spots; remainder of under surface of body dull brownish-chestnut, the lower abdomen whitish; under tail-coverts rufous-brown, with longitudinal white centres to the feathers; under wing-coverts and axillaries brownish-chestnut like the breast. Total length 9·5 inches, culmen 1·0, wing 5·45, tail 3·6, tarsus 1·25.

Young. Dark brown, chestnut only on the lower back and rump, all the feathers of the upper surface centred with ochraceous-buff streaks; under surface of body white, mottled with black margins to the feathers, the sides of the body dark chestnut-brown.

The male described is from Murree and is in the Tweeddale Collection. The specimen figured is from Assam in the Seebohm Collection. The female described and figured is in the Seebohm Collection: and the young bird is from Murree, where it was obtained by General G. A. L. Marshall in September; it is in the Hume Collection. [R. B. S.]

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MERULA KESSLERI, *Prjev.*

PRJEWALSKI'S OUZEL.

Merula kessleri, Prjev. in Rowley's Orn. Misc. ii. p. 198, pl. liv. (1877); Seebohm, Cat. Birds Brit. Mus. v. p. 261 (1881).

M. castanea: rostro et pedibus flavis: pileo colloque nigricantibus: interscapulio canescente vel albido.

This beautiful Blackbird is of the same size as *M. gouldi*, but is distinguished by its black head and whitish mantle.

The species was discovered by the late General Prjewalski, in Kansu or Ganssu, during his first expedition; here also Berezowski met with it (Berez. & Bianchi, Aves Exped. Potan. Gansu, p. 100, 1891). According to Prjewalski, this is the northern limit of its range. In the Seebohm Collection are several specimens obtained by Mr. A. E. Pratt at Ta-tsien-lu, and the Hume Collection contains a female specimen obtained by Mr. Mandelli's hunters in Eastern Tibet, beyond the Sikhim frontier.

Dr. Pleske states that on Prjewalski's third journey he met with the species at the town of Donkyr on the upper reaches of the Chuanche River, on the mountains of Southern Kuku-nor, and in Gansu, and on his fourth expedition on the north and south Tetung ranges, on the mountains near Dorfe Bamba, in the southern ranges of Kuku-nor, and also on the Dytsehu River (Wiss. Result. Prjew. Reise, Zool. ii. Vög. p. 21, 1889).

Dr. Oustalet, in his account of the collections made by M. Bonvalot and Prince Henri d'Orléans (N. Arch. Mus. (4) v. p. 145), states that specimens were obtained during the expedition at Payoundou and Tachéling in Tibet in April. He remarks that the range of the species appears to be somewhat restricted; it has been found by Prjewalski in Kan-su, where it breeds and descends to the lower valleys in the cold season; it was afterwards discovered in the southern ranges of Kuku-nor and on the banks of the Blue River, whence it extends in a south-westerly direction to the mountains of Tibet.

General Prjewalski gives the following account of the species:—"This Ouzel, named by me after our well-known ichthyologist, Professor Kessler, was discovered by me in the Kan-su mountains, where it inhabits the wooded and alpine bush-covered districts. It principally keeps, however, to the thick groves of juniper-bushes, which grow at a height of 1200 feet above the sea-level.

"In its habits *M. kessleri* very much resembles *M. gouldi*, and sings equally well, usually from the top of some tree. The call-note, however, which it utters in rising or when flying, consists of rough monosyllables something like '*chock, chock, chock*!'

"The first migrants were observed on the 15th of April. They arrived in pairs or small flocks of from three to five, and were at that time usually seen in the thickets on the shores of mountain-creeks. In the middle of May the nests were ready; and, judging from the loss of feathers on the stomach, the male also takes his turn in hatching. About the end of July we noticed the first fully-fledged young, which, during the months of July and August, kept in families. These flocks, and also those consisting of old birds in spring, were usually to be seen feeding in the mountain-meadows." (Orn. Misc. ii. p. 199, pl. liv.)

Adult male. General colour above chestnut, the mantle inclining to creamy-white so as to separate the black head from the back; scapulars chestnut, the longer ones blackish towards the ends; the lesser marginal wing-coverts ashy-brown; median and greater coverts and rest of the wings and tail black; crown of head and hind-neck, sides of face and sides of neck, as well as the entire throat and centre of fore-neck, breast, abdomen, and sides of body, chestnut, the chest ashy-white, extending up the sides of the fore-neck and uniting with the pale mantle; thighs dull rufous; under tail-coverts black with rufous edgings; axillaries dull rufous, blackish towards the base; under wing-coverts black, with rufous margins; quills dusky brown below, slightly more ashy along the inner webs: "bill yellow; feet, toes, and claws dark horn-colour, the soles paler; iris dark brown" (*Prjewalski*). Total length 11 inches, culmen 1·05, wing 6·2, tail 4·65, tarsus 1·4.

Adult female. Differs from the male in being ashy-brown instead of chestnut, the brown colour being slightly washed with rufous-ochre; wing-coverts and quills dark sepia-brown, with paler edges of ashy-brown, the inner secondaries ashy-brown externally; tail brown; entire crown of head and hind-neck brownish-black; sides of face dark ashy-brown, the lores and feathers below the eye mottled with ashy-whitish spots, and the ear-coverts streaked with whitish shaft-lines; cheeks brown, with rather broad black streaks; under surface of body dull ashy-brown, lighter on the throat, which shows a few blackish streaks and a distinct dusky malar line; fore-neck and chest darker ashy-brown; centre of breast, abdomen, and sides of body pale rufous-ochre; under tail-coverts dusky-brown, with rufous edges; under wing-coverts and axillaries dull ashy-brown, edged with rufous on the extreme margins: "bill horn-colour, yellowish towards the tip" (*Prjewalski*). Total length 10·5 inches, culmen 0·95, wing 5·7, tail 4·0, tarsus 1·35.

Young males, according to Dr. Pleske, resemble the old females, but have the blackish colour of the head and hind-neck distinctly and sharply marked off from the colour of the back, and there are other differences of shade. A specimen in the British Museum, which has not quite completed its moult, has longitudinal buff centres to the feathers, showing that the nestling it striped on the upper surface. Dr. Pleske states that, as in *M. gouldi*, the colours of the male and female nestlings show distinct characteristics.

The male and female described are in the Seebohm Collection, the former obtained on the Upper Chuanche, and the female in Kan-su. The latter is figured in the Plate, and the figure of the male is from a Kan-su specimen in the Seebohm Collection. [R. B. S.]

MERULA GOULDI, *Verr.*

GOULD'S CHESTNUT OUZEL.

Merula gouldi, Verr. N. Arch. Mus. vi., Bull. p. 34 (1870); David & Oust. Ois. Chine, p. 148, pl. xxxix. (1877); Seebohm, Cat. Birds Brit. Mus. v. p. 260 (1881).

M. castanea: rostro et pedibus flavis: pileo et collo undique grisescenti-fumosis, pileo vix saturatiore.

This fine species of Ouzel differs from *M. castanea* in its slightly larger size. It is altogether of a brighter and less vinous-chestnut colour, and thus both the grey of the head and neck and the chestnut colour of the body are of a different tint.

The species was discovered by Abbé David in Western Szechuen and Moupin in N.W. China. Here it was common enough and was generally observed in the mountain forests, descending in winter to the lower valleys. At this time of year it frequented the neighbourhood of houses to feed on the berries, as well as the clearings in search of fruit and small worms, breaking up the latter in the manner of our common European Song-Thrush. The song is good, and like that of our Blackbird, but is somewhat harsher and less silvery in tone (David & Oust. Ois. Chine, p. 148). The species was also obtained at Ta-tsien-lu by the expedition of M. Bonvalot and Prince Henri d'Orléans (Oustalet, N. Arch. Mus. (4) v. p. 144).

The late General Prjewalski found this Ouzel in the mountains of Kan-su, where it was also met with by Berezowski (*cf.* Berez. & Bianchi, Aves Exped. Potan. Gansu, p. 100, 1891). Prjewalski observes (Orn. Misc. ii. p. 198, 1877):—"We met with this beautiful Thrush in the Kan-su mountains, where it inhabits the wooded localities. Here it chooses the mountain-slopes covered with larch trees for its habitat and nidification. It is very cautious in its habits, although it never gets disturbed by man. In spring its song is beautiful, particularly early in the morning and at sunset, from the branches of trees. The young begin to fly about the end of June, and keep in families in those woods where plenty of berries are found, and usually in the vicinity of mountain-creeks. We did not notice the time of their autumnal migration from Kan-su, where they are rather common, and which, I find, is their northern limit."

Dr. Pleske, in his work on the results of Prjewalski's expeditions, gives some interesting notes on the plumage of the sexes of this bird and the nestlings. According to Prjewalski, during the rearing of the young, the old birds utter a cry not unlike that of the Grey-backed Shrike (*Lanius tephronotus*). On the 25th of July a nestling was obtained which was not yet fully feathered, but had already left the nest. At the end of July the old birds begin to moult and many of them show already fresh feathers at that date. The species does not winter in Kan-su.

Adult male. General colour above bright chestnut, slightly paler towards the lower back, rump, and upper tail-coverts, the longer coverts being reddish-brown; wings and tail black; crown of head dark slaty-brown, as well as the lores, cheeks, feathers below the eye, and ear-coverts, the dark colour of the head not forming a cap but shading off into the smoky-brown of the hind-neck and sides of neck; base of chin ashy-white; rest of throat and fore-neck smoky-brown; remainder of under surface of body bright chestnut; vent white; thighs and under tail-coverts black, broadly centred and tipped with white; under wing-coverts and axillaries bright chestnut; quills dusky brown

below, ashy on the inner webs: bill and feet yellow (in skin). Total length 11 inches, culmen 1·05, wing 5·6, tail 4·2, tarsus 1·4.

Adult female. Similar to the male, but decidedly lighter in colour, the grey of the head not so dark nor the chestnut colour so deep in tint; the wings and tail blackish washed with olive, especially on the secondaries; sides of face and cheeks, as well as the throat and fore-neck, ashy-grey, paler than in the male, the throat slightly varied with ashy-whitish edges to the feathers, producing a dusky spotted appearance; remainder of under surface of body light chestnut-rufous; thighs dark ashy; under tail-coverts blackish, broadly centred with white. Total length 11 inches, culmen 1·1, wing 5·5, tail 4·15, tarsus 1·4.

Dr. Pleske describes the young birds as striped, after the manner of all immature Ouzels, and says that the young female is like the male, but is somewhat lighter. He gives (*l. c.*) full descriptions of the young of both sexes.

The male and female here described and figured are in the Seebohm Collection, the male having been obtained by Abbé David in Moupin, and the female by Prjewalski in Kan-su.

[R. B. S.]

MERULA SEEBOHMI, *Sharpe*.

SEEBOHM'S OUZEL.

Merula seebohmi, Sharpe, Ibis, 1888, p. 386; id. Ibis, 1889, p. 267; Whitehead, Expl. Kina Balu, p. 217 (1893).

M. rostro et pedibus flavis: abdomine castaneo: notæo nigro: pileo et gutture toto quoque nigris.

This remarkable Ouzel was discovered by Mr. John Whitehead during his celebrated expedition to Mt. Kina Balu in North-western Borneo. It would appear to be confined to that mountain, as Mr. Hose has not met with it on Mt. Dulit or any of the other mountains whose avifauna approaches that of Kina Balu.

Although belonging to the group of Ouzels which comprises *Merula fumida* and its allies, the present species is easily distinguished from them by its black head and throat and by its black back.

Mr. Whitehead (*l. c.*) gives the following notes on the species:—"This Blackbird was at once recognized by me as new directly I saw it, for I had already met with *M. javanica* in the highlands of Java. It was the very first bird to greet me when I reached the height of 8000 feet, and while I was preparing my camp one came and settled close to me. In my anxiety to shoot it I got away to a little distance and fired somewhat over it, so as not to injure the specimen too much. I missed it, however, altogether, but instead of flying away it perched in a tree above me, when I easily secured it. It fell into the mossy and tangled undergrowth, and gave me a long hunt before I picked it up. I was delighted to see how different it was in appearance from its Javan representative, and I afterwards gave great attention to the procuring of further specimens. Altogether I met with several pairs, and obtained a full-fledged nestling on the 18th of February. I never observed this Blackbird below 8000 feet; but it was seen as high as 12,000 feet, and was most plentiful at about 9000 feet. I never heard it sing or utter any particular cry; but the Javan Blackbird has very much the habits of its English cousin, even to the chattering note with which it takes flight."

Adult male. General colour above sooty-black, including the wings and tail; crown and sides of head, as well as throat and chest, also sooty-black; remainder of under surface vinous-chestnut; centre of the abdomen blackish, with white tips to the feathers, the lower abdomen white; lower flanks and thighs black, with a slight rufous shade on the ends of some of the feathers; under tail-coverts black, with broad white centres and tips to the feathers, the latter tinged with rufous; axillaries and under wing-coverts sooty-black; quills dusky below, a little more ashy on the inner webs: "bill and feet king's yellow; iris black; eyelid king's yellow" (*J. Whitehead*). Total length 10 inches, culmen 0·95, wing 5·3, tail 3·9, tarsus 1·4.

Adult female. Similar to the male, but rather more sooty-brown. Total length 9·5 inches, culmen 1·0, wing 4·9, tail 3·8, tarsus 1·4.

Young. Bill dusky. General colour more dingy black than the adults, with buff streaks on the dorsal feathers and wing-coverts, taking the form of small spots at the end of the greater series; sides of face and ear-coverts dusky blackish, mottled on the cheeks with rufous; a broad malar streak of

blackish; throat uniform rufous-buff; remainder of under surface of body deep rufous, whiter on the abdomen, the fore-neck mottled with black-spotted feathers, the sides of the neck being uniform black, the black spots less distinct on the breast; under tail-coverts as in the adult female.

The descriptions have been taken from a pair of birds obtained by Mr. John Whitehead on Kina Balu, at a height of 10,000 feet, in February 1888. The specimens figured are in the Seebohm Collection. [R. B. S.]

MERULA ALBICEPS (*Swinh.*).

WHITE-HEADED OUZEL.

Turdus albiceps, Swinhoe, Ibis, 1864, p. 363; David & Oust. Ois. Chine, p. 150 (1877).
Merula albiceps, Seebohm, Cat. Birds Brit. Mus. v. p. 259 (1881).

M. nigra: rostro et pedibus flavis: subtùs castanea: pileo colloque purè albis.

This very distinct species of Ouzel seems to be entirely confined to the island of Formosa, where it was first met with by the late Consul Robert Swinhoe in the mountains of Tamsuy. The typical example was procured by him in March 1864, and he obtained further specimens at Choloshan, in Central Formosa, in September and October 1865. In November 1893, the late Mr. Holst also procured examples at Lak-ku-li, in Formosa.

Adult male. General colour above black from the nape downwards and including the wings and tail; crown of head and nape, sides of face, and entire throat, pure white; fore-neck black, forming a band which joins the sides of the neck; breast and abdomen dark cinnamon-rufous, browner on the former; the flanks also somewhat dusky, with many of the feathers externally dark ashy; thighs black, with rufous margins; under tail-coverts black, broadly centred with white; under wing-coverts and axillaries, as well as the quill-lining, black: "bill fine orange; feet and toes more dusky orange" (*R. Swinhoe*). Total length 9 inches, culmen 0·95, wing 4·75, tail 3·2, tarsus 1·25.

Adult female. Browner than the male, the brown of the back shading off into dark slaty-grey on the lower back, rump, and upper tail-coverts; wing-coverts like the back; quills dark sepia brown, externally brown like the back; tail-feathers blackish, dark slaty-grey externally; crown of head brown like the back; sides of face and a narrow collar round the hind-neck white, mottled with brown spots; throat pure white, with a few brown spots, especially along the malar line; remainder of under surface of body deep cinnamon-rufous, shaded with brown on the chest and on the flanks; thighs brown, with rufous edges to the feathers; under tail-coverts white, with brown margins; under wing-coverts and axillaries dusky brown, edged with rufous; quills dusky brown below, with narrow rufous margins to the inner webs. Total length 8·5 inches, culmen 0·9, wing 4·4, tail 2·65, tarsus 1·2.

Young. Similar to the old female, but browner, and with the head brown like the back, the sides of the crown being white; the head and back streaked with mesial shaft-lines of buff, widening out into triangular spots at the end of the wing-coverts; sides of face, ear-coverts, and throat white, the former spotted with brown, the cheeks separated from the throat by a malar line of dusky brown spots; remainder of under surface of body dull orange-buff, mottled with narrow blackish bars at the ends of the feathers: "bill yellow, washed with olive-brown; rictus and inside of mouth orange-yellow; feet and claws brownish yellow" (*R. Swinhoe*).

Immature birds often show spots of dusky brown on the white head and neck.

The male described was obtained by Holst at Lak-ku-li, in Formosa, on the 13th of November, 1893, and the figure in the Plate is taken from the type. The female described and figured was procured by Consul Swinhoe at Choloshan, in Central Formosa. All are in the Seebohm Collection. [R. B. S.]

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MERULA FUMIDA (*S. Müll.*).

MÜLLER'S CHESTNUT-BREASTED OUZEL.

Turdus (Merula) fumidus, S. Müll. Verh. Nat. Gesch. Nederl. Ind., Land- en Volkenk. p. 201 (1839–44).

Turdus hypopyrrhus, Hartl. Verz. Brem. Samml. 1844, p. 43; Gray, Gen. B. i. p. 219 (1847); Cab. Mus. Hein. Th. i. p. 3 (1850); Salvad. Ucc. Born. p. 258 (1874).

Turdus fumidus, Gray, Gen. B. i. p. 219 (1847); Bp. Consp. i. p. 274 (1850); Finsch, J. f. O. 1863, p. 39.

Turdus javanicus, pt. (nec Horsf.), Blyth, J. A. S. Beng. xvi. p. 143 (1847); Sclater, Ibis, 1861, p. 280; Gray, Hand-l. B. i. p. 255. no. 3705 (1869).

Turdus vulcanus, Pelz. Reis. Novara, Vögel, p. 70 (1865, ex Temm. MSS.).

Turdus javanicus (nec Horsf.), Salvad. Ucc. Born. p. 255. no. 3705 (1874); Sclater, Ibis, 1875, p. 344, pl. vii.

Merula javanica, pt. (nec Horsf.), Seebohm, Cat. Birds Brit. Mus. v. p. 279 (1881); id. Ibis, 1893, p. 219; Hartert, Nov. Zool. iii. p. 538 (1896).

Merula fumida, Finsch, Notes Leyden Mus. xx. p. 229 (1898).

M. rostro flavo: pedibus flavis: notæo fumoso-brunneo, pileo concolore vix saturatiore: facie laterali, gutture et præpectore quoque fumoso-brunneis: pectore et abdomine castaneis: plagâ crissali albâ: subcaudalibus fumoso-brunneis, latè albo medialiter striatis.

This species of Chestnut-breasted Ouzel has been, in a most unaccountable way, confounded with *Merula javanica*, notwithstanding that the types of the latter have been in the British Museum and have been examined by many ornithologists.

It seems to be entirely confined to West Java, and I believe that its reputed occurrence in Sumatra and Borneo, as recorded by Bonaparte, is in both instances erroneous. In the British Museum is a specimen of *M. hypopyrrha*, purchased of Verreaux, and said to be from Borneo, which is undoubtedly of Javan preparation, and is identical with a specimen from Java in the Tweeddale Collection. The place of *M. fumida* is taken in Borneo by *M. seebohmi*, both being inhabitants of very high mountains.

According to Dr. Finsch, the type of *M. fumida* was procured by Dr. Solomon Müller on Mount Gedé, in Western Java, in 1826 or 1827, at an altitude of 8000 feet. The Tring Museum, so Mr. Hartert informs me, has received four specimens from Mr. Prittwitz, obtained on the same mountain at the same elevation. Dr. A. R. Wallace also met with the species at 9500 feet in West Java, "on the very summit of Mount Pangerango," a volcanic cone 10,000 feet high. Here also an example was procured by Zelebor during the voyage of the 'Novara.' It also occurs in East Java, as Mr. Doherty has obtained specimens on Mount Arjano at 8000 and 8300 feet. This mountain is an enormous old volcano in the eastern part of Java, south of Surabaya (*cf.* Hartert, *l. c.*). Mr. Hartert informs me that the Arjano birds are of the same species as those from Gedé and are not *M. whiteheadi*.

Dr. Wallace says that the specimen obtained by him was feeding on the ground among the strawberries which have been planted on Mount Pangerango. No other notes on the habits of the species seem to have been published.

Adult. General colour above smoky brown, with a slight wash of ashy grey; wing-coverts like the back; quills sepia-brown, slightly shaded with grey; tail-feathers sepia-brown; head and neck all round smoky brown, as well as the fore-neck and chest, the latter slightly washed with grey; breast and abdomen clear ferruginous, as also the flanks; the sides of the breast smoky brown; a small white patch on the lower abdomen; sides of vent and thighs smoky brown, as also the under tail-coverts, the latter broadly streaked with white down the centre; under wing-coverts, axillaries, and quill-lining smoky brown: "bill, feet, and eyelid yellow; iris olive" (*A. R. Wallace*). Total length 9·6 inches, culmen 0·85, wing 4·8, tail 3·75, tarsus 1·35.

The description is taken from an adult male collected by Dr. A. R. Wallace in West Java at 9500 feet. The specimen figured is a Javan specimen in the Tweeddale Collection. [R. B. S.]

MERULA WHITEHEADI, *Seebohm*.

WHITEHEAD'S CHESTNUT-BREASTED OUZEL.

Merula whiteheadi, Seebohm, Bull. Brit. Orn. Club, v. p. xxv (1893); id. Ibis, 1898, pp. 221, 257; Finsch, Notes Leyden Mus. xx. p. 230 (1898).

M. rostro flavo: pedibus flavis: similis *M. fumidæ*, sed pallidior et griseseentior, et pileo undique, gutture et præpectore cinerascenti-brunneis distinguenda.

This species very much resembles *M. fumida*, but is rather greyer, and is distinguished by its ashy-brown head and face. This ashy colour overspreads the throat and chest and upper breast. In the male the white shaft-lines to the under tail-coverts are very narrow, but they are broader in the female. The quills and tail are blacker in *M. whiteheadi* than in *M. fumida*.

It is as yet known only from Mount Tosari in Eastern Java, where it was discovered by the late Mr. John Whitehead, after whom it was named by Mr. Seebohm. The typical specimens are in the Seebohm Collection in the British Museum.

Adult male. General colour above dark slaty-grey, the wing-coverts like the back; quills and tail-feathers blackish, contrasting with the back, and edged with dark slaty-grey; crown of head, sides of face, hind-neck and sides of neck, and throat dark ashy grey, becoming gradually dusky slaty-brown on the lower throat, fore-neck, and breast; abdomen chestnut; a small patch on the lower abdomen white; sides of body, thighs, and under tail-coverts dark slaty-brown, the latter with narrow whitish shaft-lines; under wing-coverts and axillaries dark slate-colour like the chest; quills dusky brown below, more ashy on the inner webs: "bill, feet, and eyelids dull king's yellow; iris black" (*J. Whitehead*). Total length 9·5 inches, culmen 0·9, wing 4·75, tail 3·6, tarsus 1·35.

Adult female. Similar to the male, but slightly duller in colour, and with broader longitudinal centres to the under tail-coverts: "bill, feet, and eyelids as in the male" (*J. Whitehead*). Total length 9 inches, culmen 0·9, wing 4·75, tail 3·6, tarsus 1·35.

The descriptions have been taken from the typical examples in the Seebohm Collection, and the figures in the Plate represent an adult male and female. [R. B. S.]

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MERULA SCHLEGELI (*Sclater*).

SCHLEGEL'S CHESTNUT-BREASTED OUZEL.

Turdus (*Merula*) *fumidus*, pt., S. Müller, Verh. Nat. Gesch. Nederl. Ind., Land- en Volkenk. p. 201, note (1839–1844).
Turdus schlegeli, Sclater, Ibis, 1861, p. 280; Wallace, P. Z. S. 1863, p. 485; Sclater, Ibis, 1875, p. 347.
Turdus javanicus, pt., Gray, Hand-l. B. i. p. 255. no. 3705 (1869).
Merula javanica, pt., Seebohm, Cat. Birds Brit. Mus. v. p. 279 (1881).
Merula schlegeli, Büttik. Notes Leyden Mus. xv. p. 109 (1892); Seebohm, Ibis, 1893, p. 221; Finsch, Notes Leyden Mus. xx. p. 228 (1898).

M. similis *M. fumidæ*, sed pallidior: præsertim gutture et præpectore dilutioribus distinguenda: abdomine crissoque castaneis, minimè albis: subcaudalibus rhachidibus pallidis vix striatis.

This is the representative of *M. fumida* in the Island of Timor, and the type specimen in the Leyden Museum is still the only one known. It was discovered by Salomon Müller in the interior of Timor in the Penpaan Valley near the mountain of Micomaffo. As Dr. Finsch points out, the altitude at which *M. schlegeli* lives must be considerable, as Müller remarks that he had never experienced such cold before either in Timor or Java.

The species was considered by Müller to be identical with his *Turdus fumidus* from Java, and more recently Seebohm considered the Ouzels of Timor and Java to be identical. *T. schlegeli* was, however, specifically separated by Dr. Sclater in 1861, and both Dr. Büttikofer and Dr. Finsch, who have had the opportunity of comparing the type of *M. schlegeli* with Javan examples of *M. fumida*, pronounce the Timor bird to be distinct.

Dr. Büttikofer writes:—"This species is easily distinguished from *M. javanica* [i. e. *M. fumida* of this work] by the paler colour, especially of the head, neck, throat, and chest, by the vent and centre of the abdomen being chestnut instead of white, and by the absence of the white shaft-streaks on the under tail-coverts." Similar distinctive characters are given by Dr. Finsch, and it seems to me probable that *M. whiteheadi* will ultimately turn out to be the nearest ally of *M. schlegeli*, rather than *M. fumida*.

I am unable to give a detailed description of this species, as I have not had an opportunity of examining the type specimen in the Leyden Museum. [R. B. S.]

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MERULA CELEBENSIS, *Büttik.*

CELEBEAN CHESTNUT-BREASTED OUZEL.

Merula celebensis, Büttik. Notes Leyden Mus. xv. p. 109 (1892); Seebohm, Ibis, 1893, p. 222; Hartert, Nov. Zool. iii. p. 150 (1896), iv. p. 155 (1897); Meyer & Wiglesw. B. Celebes, ii. p. 510 (1898).

M. rostro flavo: pedibus flavis: similis *M. fumidæ*, sed suprà paullulum olivaceo tincta, pileo quoque saturatiore brunneo: pectore pallidiore et potiùs aurantiaco-castaneo: subcaudalibus medialiter albo lineatis.

The typical specimen of *M. celebensis* is in the Leyden Museum, and was described by Dr. Büttikofer in 1892. The example in question was forwarded to that Institution by Mr. Teysmann from Makassar in 1877, but, as Dr. Meyer and Mr. Wiglesworth have pointed out in their 'Birds of Celebes,' it is unlikely that the specimen came from the immediate vicinity of Makassar, but that it was found on the high mountains in the interior of the Southern Peninsula, thirty miles away. Drs. P. and F. Sarasin met with it on Lompo Batang Mountain, which attains to an elevation of 10,000 feet. These travellers procured specimens at a height of 6000 feet.

On Bonthain Peak Mr. Doherty obtained examples of this Ouzel between 6000 and 7000 feet, whence it ranges to still higher elevations, and on the same mountain it was likewise found by the late Mr. Everett's native collectors.

Adult female. Very similar to *M. fumida*, and only to be distinguished by being more olive-brown above, not so slaty-grey in tint, in having the head almost precisely of the same colour as the back, and in having the dark ashy-brown colour of the throat arrested at the fore-neck and not extending over the chest and upper breast; the centre of the abdomen also showing a slight admixture of white. Total length 8·7 inches, culmen 0·95, wing 4·75, tail 3·25, tarsus 1·4.

An adult male from Bonthain Peak is fully described by Mr. Hartert (*l. c.*), and the soft parts are given by Mr. Doherty as follows:—"Iris dark brown; feet ochreous-brown; bill orange-ochreous, duller above." Mr. Hartert says that the female differs in being somewhat browner on the breast.

The young bird is described by Dr. Meyer and Mr. Wiglesworth as follows (*l. c.*):—

"*Young male.* Above warmer brown (bistre) than the adult, darkest on the head, palest on the rump; tail blackish; on the mantle and scapulars some fulvous shaft-streaks; the wing-coverts with rufous tips; underparts rufous, less clear than in the adult, spotted with dusky, most thickly on the breast; crissum whitish; thighs grey-brown and cinnamon; superciliary stripe, eyelid, and submalar stripe fulvous-rufous, below the last a dark stripe on either side of the throat."

The description and figure are taken from Mr. Everett's specimen from Bonthain Peak in the British Museum.

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MERULA JAVANICA (*Horsf.*).

JAVAN GREY OUZEL.

Turdus javanicus, Horsf. Trans. Linn. Soc. xiii. p. 148 (1822); Blyth, J. A. S. Beng. xvi. p. 143 (1847); Gray, Gen. B. iii., App. p. 10 (1849); Horsf. & Moore, Cat. B. Mus. E. I. Co. i. p. 196 (1854); Scl. Ibis, 1861, p. 280; Gray, Hand-l. B. i. p. 255. no. 3705 (1869); Salvad. Ucc. Born. p. 257 (1874).

Turdus concolor, Temm. MSS.; Blyth, J. A. S. Beng. xvi. p. 143 (1847).

Turdus nigricrissus, Schiff, MSS.; Bp. C. R. xxxviii. p. 6 (1854).

Merula javanica, pt., Seebohm, Cat. Birds Brit. Mus. v. p. 279 (1881); id. Ibis, 1893, p. 219; Büttik. Notes Leyden Mus. xv. p. 107 (1893); Finsch, Notes Leyden Mus. xx. p. 227 (1898).

M. rostro flavo: pedibus flavis: notæo et gastræo fumoso-brunneis, capite vix pallidiore: abdomine imo paullo ochrascente, minimè castaneo: subcaudalibus nigricantibus, rhachide alba medialiter notatis.

Over the identity of this species has arisen an amount of controversy and a degree of confusion probably unequalled in the annals of ornithology. Nor is it yet possible entirely to trace the history of the species, though Dr. Otto Finsch's article on *Merula javanica* in the 'Notes from the Leyden Museum' (vol. xx. p. 227) clears up many points of difficulty.

In 1822 Horsfield described his *Turdus javanicus* as follows:—"*T.* corpore fusco, striga gulari maculisque abdominalibus obscuris ferrugineis." The British Museum possesses Horsfield's specimens at the present time, and Mr. Seebohm (Ibis, 1893, p. 219) writes concerning them:—"There are three types of Horsfield's *Merula javanica* in the British Museum, which are apparently male, female, and young. The adults differ from all other Javan examples known in having the chestnut restricted to the belly, and not extending to the flanks. The white on the under tail-coverts is also reduced to a shaft-line in the male. It is possible that they may have been procured on some other mountain, and that *M. fumida* may be specifically distinct from *M. javanica*."

Seebohm, as will be seen from the above passage, considered that Horsfield's specimens were male, female, and young of a single species. There is no identification of sex on any of the specimens, and the determination of the male and female is mere guess-work, though not improbably correct. The young bird is the only one of the three which has any sign of rufous colour on the under surface, and is the actual type of Horsfield's *Turdus javanicus*. I should not call the abdomen chestnut, but it might be the young of the chestnut-breasted *Turdus fumidus*, and will, in all probability, supersede that name, but this is by no means proven. Seebohm speaks of the adults having "chestnut on the belly," but they have no chestnut, but only a little buff colour, which I cannot believe to have been chestnut or anything like rufous at any time. If this colour had ever been chestnut, and had faded to buff, then it is possible that the type of *T. javanicus* of Horsfield is the actual young of the two adult birds, though these are not mentioned by him in print, when he described the species.

Dr. Otto Finsch in his admirable essay on *Merula javanica* and *M. fumida* (Notes Leyden Mus. xx. pp. 227–230) describes an adult bird from Mt. Tjerimai in Cheribon in Western Java. The

specimen in question was presented to the Leyden Museum by Dr. Vorderman, who procured it at an elevation of over 5000 feet. I should agree with Dr. Finsch that this bird is the true *M. javanica* (Horsf.), but that he describes it as having a considerable patch of *chestnut* on the belly, and the drawing which he has sent me shows a larger extent of chestnut than can be seen on the two Horsfieldian examples. It may, however, be possible that the latter, being very ill-preserved, have faded to such an extent that the chestnut colour, after nearly ninety years, has become buff.

Only the receipt of a carefully collected series of Thrushes from the different mountains of Java can settle this question; and at present I am inclined to believe that the young bird, the type of *Turdus javanicus* of Horsfield, may possibly be the young of *Merula fumida* (S. Müll.), and that the two old birds represent a distinct and plain-coloured species of the same group as *M. vitiensis*. The bird described by Dr. Finsch from Cheribon may probably turn out to be a distinct species of the *M. fumida* group.

It is strange that no specimens actually agreeing with the adult birds procured by Horsfield in the early part of the last century have since been discovered. It may be added that the name of *Turdus concolor* of Temminck, published by Blyth, does not appear in any of the records of the Leyden Museum (*cf.* Finsch, *l. c.*).

Adult. Above smoky brown, the wings and tail slightly darker, the head and neck all round scarcely paler than the rest of the body; under surface of body somewhat paler brown, the under tail-coverts blackish, with a narrow white shaft-line; lower abdomen slightly tinged with ochre, but not chestnut. Total length 8·5 inches, culmen 0·8, wing 4·9, tail 3·6, tarsus 1·35.

Another specimen is similar in colour, but is slightly more ochreous on the lower breast and abdomen, and is followed by a white spot; under tail-coverts as before. It should be noted that there is no trace of a white spot on the adult bird described above, which has also scarcely any ochreous tinge on the abdomen, but the absence of these characters may be due to the loss of feathers.

The supposed young bird, the type of *M. javanica* (Horsf.), has a broad streak of ochreous buff down the centre of the throat, and a moustachial streak of the same colour on each side; the breast and abdomen are more rufescent, but scarcely to be called chestnut.

The figures in the Plate are taken from Horsfield's examples in the British Museum, and the descriptions are from the same birds. [R. B. S.]

MERULA VITIENSIS, *Layard*.

VANUA LEVU OUZEL.

Merula vitiensis, Layard, Ann. & Mag. Nat. Hist. (4) xvii. p. 305 (1876); id. Ibis, 1876, pp. 390, 392; Ramsay, Proc. Linn. Soc. N. S. W. iii. p. 337 (1879), vii. p. 113 (1883); Tristr. Cat. Coll. p. 129 (1889); Wiglesw. Aves Polyn., Abhandl. k. zool. Mus. Dresden, 1890–91, no. 6, p. 39 (1891).

Merula vanicorensis (nec Quoy et Gaim.), Layard, Ibis, 1876, p. 151.

Turdus vitiensis, Layard, P. Z. S. 1876, pp. 492, 505; Tristr. Ibis, 1879, p. 188; Nehrk. J. f. O. 1879, p. 405.

Merula vanuensis, Seebohm, P. Z. S. 1890, p. 667.

M. rostro flavo: pedibus flavis: griseo-brunnea, pileo dorsoque concoloribus: facie laterali, gutture et pectore pallidioribus et paullo cinerascentibus: abdomine obsoletè vel paullulum rufescente.

The rufous colour on the abdomen is scarcely to be distinguished in the male bird, but is more pronounced in the female, so that the species may be classed with the chestnut- or ochre-bellied section of the genus *Merula*. The male of *M. vitiensis* is very like *M. javanica* in appearance, notwithstanding the enormous distance which separates the habitats of the two species.

The original specimen of *M. vitiensis* was procured in Vanua Levu, at Bua in Sandalwood Bay, by Mr. Tempest, who sent it to Mr. E. L. Layard. The species was described by the latter gentleman in 1876, and shortly afterwards additional specimens were procured by his son in the same island of Vanua Levu. The name of *vitiensis* can scarcely be regarded as a happy choice, as it suggests the island of Viti Levu as the habitat of the species, and the discovery of a distinct form on the latter island (*M. layardi*) induced Mr. Seebohm to propose the name *vanuensis* for the Vanua Levu bird. Although this change has not been adopted by Mr. Wiglesworth, I feel convinced that the Vanua Levu species will ultimately be called *M. vanuensis* (Seebohm), as the name of *vitiensis* is misleading.

Mr. Tempest says that the species is extremely shy and difficult to procure. Its note and habits resemble those of the European Blackbird, and it scratches on the ground like the latter species. The nest is also said to be like that of *Merula merula*.

Adult male. General colour above uniform brown, the head of the same colour as the back, the hind-neck and mantle scarcely any lighter brown than the head and back; quills and tail deep sepia-brown; sides of face, throat, and breast lighter and more ashy-brown, rather darker again on the flanks, thighs, and under tail-coverts, the latter being entirely uniform; the feathers of the lower breast and abdomen slightly edged with rufous-ochre, imparting a rufescent tint to these parts; a white spot on the lower abdomen: "bill light orange; feet bright yellow; iris dark brown" (*C. L. Layard*). Total length 8·5 inches, culmen 0·9, wing 4·3, tail 2·85, tarsus 1·4.

Adult female. Similar to the male, but showing more rufous on the breast and abdomen. Total length 7·7 inches, culmen 0·95, wing 4·2, tail 2·7, tarsus 1·35.

Another female, in the Tweeddale Collection, procured at Bua by Mr. Tempest, agrees with the type of *M. vitiensis* (also from Bua) in having very little rufous on the abdomen, and this tint may be an indication of immaturity.

The specimens figured in the Plates are the typical male from Bua given by Mr. Tempest to Mr. Layard, while the female was procured by the latter's son Leopold, at Bua, in April 1876. This specimen as well as a male bird obtained at the same time have been described. Seebohm has figured the males of these allied species on one Plate and the females on a second.

[R. B. S.]

MERULA LAYARDI, *Seebohm*.

VITI LEVU OUZEL.

Merula vitiensis (nec Layard), Seebohm, Cat. Birds Brit. Mus. v. p. 278 (1881).
Merula layardi, Seebohm, P. Z. S. 1890, p. 667; Wiglesw. Abhandl. k. zool. Mus. Dresden, 1890–91, no. 6, p. 39 (1891).

M. rostro et pedibus flavis: similis *M. vitiensi,* sed pallidior, olivaceo-brunnea: gutture et pectore cinerascentioribus, pectore et abdomine lætè castaneis, hypochondriis concoloribus distinguenda.

Reviewing the Fijian species of *Merula* in the 'Proceedings' of the Zoological Society for 1890 (*l. c.*), Mr. Seebohm drew attention to the differences between the species inhabiting Viti Levu and the one found in Vanua Levu. He proposed the name of *Merula layardi* for the former bird, which differs from *M. vitiensis* in being more olive-brown and not so dark, in having a lighter ashy-grey throat and chest, and in having the whole breast and abdomen, as well as the flanks, bright chestnut. Besides these important characters, there is the further fact that the under tail-coverts are distinctly centred with reddish white.

All the specimens known up to the present time appear to have been obtained by Kleinschmidt in the mountains of the interior of Viti Levu, where he says that the natives call the bird "Na Tolla." Specimens are in the Seebohm and Tweeddale Collections, and the British Museum has received a pair from the Godeffroy Museum in Hamburg; these are the types of Seebohm's *M. layardi.*

Adult male. General colour above olive-brown, the wing-coverts like the back; quills and tail-feathers sepia-brown, edged with the same olive-brown as the back; crown of head smoky brown, forming a scarcely distinguishable cap; lores and sides of face lighter and more ashy brown, as also the throat, where it shades off into the darker ash-colour of the fore-neck and chest, the sides of which are decidedly more dusky brown; the chest-feathers with a faint rufous tinge; breast, abdomen, and sides of body bright vinous-chestnut, with a few of the median abdominal feathers edged with slaty-grey; vent white; thighs ashy-grey; under tail-coverts with rufous centres and dusky brown edges, more distinct on the longer ones, where the longitudinal centres are darker; under wing-coverts dark ashy-grey, washed with chestnut, the axillaries chestnut, with ashy-grey inner webs and pale ashy tips; quills dusky below, more ashy on the inner webs. Total length 8 inches, culmen 0·95, wing 4·6, tail 3·1, tarsus 1·45.

Adult female. Scarcely differs from the male at all, except on the sides of the face and under surface of the body, the former being darker ashy-grey, as also the throat, and the lower throat and chest being shaded with a strong tint of orange-chestnut like the breast and sides of the body, the chestnut of the under surface being duller than in the male. Total length 7·5 inches, culmen 0·9, wing 4·5, tail 2·85, tarsus 1·3.

The male and female described are in the Seebohm Collection; these specimens are also figured in the Plates, along with the male and female of *M. vitiensis* respectively. [R. B. S.]

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MERULA VINITINCTA, *Gould*.

LORD HOWE ISLAND OUZEL.

Merula vinitincta, Gould, P. Z. S. 1855, p. 165; id. Handb. B. Austr. ii. p. 529 (1865); Ramsay, Proc. Linn. Soc. N. S. W. iii. p. 337 (1879); Seebohm, Cat. Birds Brit. Mus. v. p. 277 (1881); Etheridge, Rep. Lord Howe Isl. 1889, p. 9; North, Nests & Eggs Austr. B. p. 411 (1889).
Turdus vinitinctus, Sclater, Ibis, 1861, p. 281; Gray, Hand-l. B. i. p. 255. no. 3711 (1869).
Turdus xanthopus, pt. (nec Forst.), Tristr. Ibis, 1879, p. 188.

M. rostro flavo: pedibus flavis vel flavicanti-brunneis: similis *M. xanthopodi,* sed minor et pallidior: notæo paullulum olivascentiore: gastræo vividiore vinaceo-castaneo.

The Ouzel from Lord Howe Island is certainly very similar to *M. xanthopus* of New Caledonia, but it is decidedly a smaller bird and paler in colour, the vinous tint of the under surface being likewise somewhat different.

The following note is given by Mr. Robert Etheridge in his memoir on Lord Howe Island and its Fauna:—"*M. vinitincta*, a very active and pleasing bird, represents the Thrushes. It is locally known as the 'Doctor' Bird and is peculiar to the island. It frequents the more secluded hill-sides, especially at the north end of the island, although it was found in the low ground bordering the shore, on the east side, but not to the same extent. We also observed it high upon the flanks of Mount Ledgbird. Mr. R. D. Fitzgerald states that the bird possesses the same leaf-tossing habits as the European Blackbird. The nest is composed of palm-tree fibre, and is long and cylindrical, the base solid and filled up."

Mr. A. J. North describes the nest and eggs as follows:—"A nest of this species taken during the month of October, 1889, is elliptical in form, with a small cup-shaped depression in the top, and is composed throughout of strips of palm leaves and fibre of one of the species of *Kentia* peculiar to the Island, together with skeletons of leaves, but without any special lining: it measures exteriorly seven inches in diameter by five inches in depth; internally, three inches in depth by two inches and a half across. Mr. Icely states that the nest was built in the branches of a shrub not far from the ground. The eggs are two in number for a sitting, inclining to elongated ovals in form, slightly pointed at the thinner end, of a pale greenish-grey ground-colour, with freckles, dots, and longitudinal markings of reddish-brown dispersed over the entire surface of the shell, in some places a few nearly obsolete blotches of purplish-grey appear. Length (A) 1·15×0·77 inch; (B) 1·12×0·77 inch."

Adult male. General colour above chocolate-brown, with a faint olive tinge, rather pure rufous on the lower rump and upper tail-coverts; the wing-coverts like the back; quills sepia-brown, externally paler brown, the inner secondaries being chocolate-brown on their outer webs; tail-feathers sepia-brown; crown of head and nape dusky brown, forming a very indistinct cap in contrast to the back; lores, sides of face, and ear-coverts also dusky brown, the latter with faintly indicated paler shaft-lines; throat dusky brown, shading off into the dull vinous-brown colour of the rest of the underparts; thighs ashy, with a slight vinous tinge; under wing-coverts and axillaries

dull ashy-brown, with a slight vinous tint; quills dusky below, somewhat more ashy on the inner webs: "bill bright gamboge-yellow; feet yellow; eyelid yellow" (*J. Macgillivray*). Total length 8 inches, culmen 0·9, wing 4·3, tail 3·35, tarsus 1·2.

Adult female. Differs from the male in being paler and more olivaceous brown above, the head being scarcely perceptibly different from the back; the vinous colour of the under surface decidedly lighter than in the male. Total length 7·5 inches, culmen 1·85, wing 3·9, tail 2·65, tarsus 1·15.

The specimens described and figured are a male from the Seebohm Collection and a female collected by Macgillivray. [R. B. S.]

MERULA XANTHOPUS (*Forster*).

NEW-CALEDONIAN OUZEL.

Turdus xanthopus, Forster, Icon. ined. pl. 151; id. Descr. Anim. ed. Licht. p. 266 (1844); Verr. et Des Murs, Rev. Zool. 1860, p. 391; Marie, Actes Soc. Linn. Bordeaux, xxvii. p. 327 (1869); Gray, Hand-l. B. i. p. 255. no. 3709 (1869); Layard, Ibis, 1878, p. 253; Tristr. Ibis, 1879, pp. 182, 188; Layard, Ibis, 1880, p. 225.

Turdus (*Merula*) *xanthopus*, Gray, List B. Trop. Isl. Pacific Ocean, p. 16 (1859).

Merula xanthopus, Ramsay, Proc. Linn. Soc. N. S. W. iii. p. 337 (1879); Seebohm, Cat. Birds Brit. Mus. v. p. 276 (1881); Wiglesw. Abhandl. k. zool. Mus. Dresd. 1890–91, p. 38 (1891).

M. rostro et pedibus flavis: notæo brunneo: corpore subtùs vinaceo-rufo, gutture vix fuscescente.

This Ouzel was discovered in New Caledonia by Forster during Capt. Cook's voyage, and a drawing was made by him, which is still extant in the British Museum. His name of *xanthopus* was not published till 1844, when Lichtenstein published his 'Descriptiones Animalium.'

Very little has been recorded concerning the species, which Layard records as not uncommon in the neighbourhood of Noumea; and the British Museum possesses a good series of specimens. Forster gives the native name as "Degbe," and according to Jules Verreaux it is also called "Tiu-tiu" at the present day. Layard found the contents of the stomachs of several specimens to consist of worms, insects, or berries.

Adult male. General colour above dark ruddy brown, the wing-coverts like the back; quills and tail sepia-brown, the former edged with the same ruddy brown as the back, the secondaries more broadly, the inner ones entirely like the back; head a trifle greyer than the back, and contrasting slightly with the latter; sides of face and throat decidedly lighter grey, shading off gradually into the dark vinous-chestnut of the breast and underparts; thighs and under tail-coverts duller brown, as also the under wing-coverts and axillaries: "bill yellowish brown; feet straw-colour; iris dark brown" (*C. L. Layard*). Total length 8·3 inches, culmen 0·8, wing 4·7, tail 3·1, tarsus 1·2.

Adult female. Scarcely different from the male, and with the head only a little darker than the back; the vinous-chestnut colour of the underparts duller: "bill and feet raw sienna; iris dark drab" (*E. L. Layard*). Total length 8·5 inches, culmen 1·0, wing 4·4, tail 3·0, tarsus 1·2.

The description of the male is taken from a specimen procured by the late John Macgillivray at Nu in New Caledonia, and that of the female from one of Mr. E. L. Layard's Noumea skins. This specimen is also figured on the Plate, and Mr. Seebohm has marked a male from Waileu in New Caledonia as having been figured for this 'Monograph.' This specimen has evidently been in spirits and has lost its natural colour, being dingy brown above, dusky underneath, with almost all traces of vinous colour obliterated. It does not represent the natural colour of the species. [R. B. S.]

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MERULA MINDORENSIS, *Ogilvie Grant.*

MINDORO OUZEL.

Turdus mindorensis, Ogilvie Grant, Ibis, 1896, p. 465; Whitehead, Ibis, 1899, p. 213.

M. rostro flavo: pedibus flavicanti-brunneis: pectore imo et abdomine albis: hypochondriis vinaceo-castaneis: tibiis fuscescenti-nigris: gutture et præpectore griseis.

The Mindoro Ouzel is a very interesting species, exhibiting characters intermediate between the chestnut-sided species of Ouzels of the Malayan Archipelago, such as *Merula javanica*, *M. seebohmi*, &c., and the grey-throated section of Ouzels, such as *M. canescens* and *M. pritzbueri*.

Mr. John Whitehead, who discovered the species, writes:—"This Blackbird is common on Monte Dulungan in Mindoro, after an altitude of 4000 feet is passed, and is probably found as high as 8000 feet, which is about the approximate height of this mountain. The highest point reached by me was 6000 feet, where the species was still to be met with. It frequented the thick dark forest in this rainy region. At the time of our visit (November) many of the young were moulting to their adult plumage. I have now met with Blackbirds in several tropical islands, but though the species bear little resemblance to each other when adult, the habits of those species found in Java, Borneo, and the Philippines differ little from those of our well-known garden-friend." (Ibis, 1899, p. 213.)

Adult male. General colour above sooty-black, the wings and tail like the back; crown of head dull ashy, a little lighter on the hind-neck and sides of face and neck; feathers below the eye dusky grey; throat and chest rather lighter ashy-grey, the sides of the upper breast being sooty-blackish; upper breast and sides of the body dark vinous-chestnut; centre of breast and abdomen pure white; lower flanks blackish; thighs dark slaty-grey; under tail-coverts white, mottled with black margins to the feathers, the lower feathers being black with broad white centres; under wing-coverts and axillaries dark ashy: "bill king's yellow; legs in front yellowish brown, the back of the tarsus, soles of the feet, and joint-scales bright yellow; iris dark brown; orbital skin greenish-yellow' (*J. Whitehead*). Total length 8·5 inches, culmen 0·9, wing 4·2, tail 3·5, tarsus 1·2.

Adult female. Similar to the male, but with the head less ashy and decidedly darker brown, the ashy-grey of the throat and chest rather duller in tint, as also is the chestnut colour of the underparts, the white of the under tail-coverts being slightly tinged with rufous. Total length 8·5 inches, culmen 0·9, wing 4·1, tail 3·5, tarsus 1·2.

The descriptions and the figures in the Plate are taken from the typical specimens in the British Museum. [R. B. S.]

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MERULA CARDIS (*Temm.*).

GREY JAPANESE OUZEL.

Turdus cardis, Temm. Pl. Col. ii. pl. 518; id. & Schl. Faun. Japon. p. 65, pls. xxix., xxx.; Swinh. P. Z. S. 1871, p. 367; David & Oust. Ois. Chine, p. 150 (1877); Blakist. & Pryer, Ibis, 1878, p. 240; Stejn. Pr. U.S. Nat. Mus. xv. p. 314 (1892).
Merula cardis, Seebohm, Cat. Birds Brit. Mus. v. p. 261 (1881); id. B. Japan Emp. p. 45 (1890).

M. rostro et pedibus flavis: pectore medio et abdomine albis: corporis lateribus aurantiacis vel brunneis, minimè vinaceis, et nigro guttatis: axillaribus griseis (♂) vel aurantiacis (♀).

This pretty Ouzel is an inhabitant of Japan in summer, wintering in China and Hainan.

It is said by Blakiston to be found in Yezo and Japan generally ('Amended List B. Japan,' p. 16, 1884), and specimens are in the British and United States National Museums from Hakodate (*Henson*, *Blakiston*) and Sapporo (*Blakiston*) in Yezo, from Nagasaki in Kiusiu (*Ringer*), and from Fuji in Hondo (*Jouy*, *H. Pryer*).

Messrs. Blakiston and Pryer state that the species breeds commonly on Mt. Fujisan. The late P. L. Jouy speaks of it as being a lowland Thrush. He found nests at Fuji in the latter part of June and early in July, all around the base of the mountain; here it was quite common, but he did not meet with it at any other place.

Abbé David and Dr. Oustalet state that the species occurs in Amur Land in summer, but I have not discovered any authority for this fact; they likewise remark on its non-appearance near Pekin. Dr. Stejneger, however, mentions a specimen procured by Jouy at Fusan, Corea, in April 1886. It visits Southern China during the winter (Ois. Chine, p. 150, 1877). Consul Swinhoe also records it as being found in flocks on the south coast of China, as far as Canton (P. Z. S. 1863, p. 280). Near the latter place he noticed these Ouzels passing north in February and March (Ibis, 1860, p. 132). Mr. F. W. Styan records *M. cardis* from Foochow, where Mr. De La Touche also met with it from November to April; it was, however, not common in the neighbourhood (Ibis, 1887, p. 217). Specimens procured by Mr. C. B. Rickett in the same area have been presented by him to the British Museum, which also possesses specimens collected by Swinhoe at Hong Kong and Amoy (March and April), as well as in Hainan. Here, says Swinhoe, "I saw this Thrush, early in February, about the gardens at Kiungchow-foo, and on the 20th of that month at Tai-ping-sze, in Central Hainan, I secured a fine male in full adult black and white plumage" (Ibis, 1870, p. 248).

Messrs. Blakiston and Pryer state that the present species sings beautifully. The nests taken on Fujisan were made "almost wholly of moss, and often placed on a stump or built against the side of a tree. The eggs were five, of a greenish or reddish white, patched all over with umber-brown."

Jouy describes the nest as follows:—"It is generally placed in the fork of a small tree overhanging a stream, and is composed of moss and roots woven into a compact mass, with the addition of dried leaves and mud to give it solidity. It is lined with grass, fine rootlets, and

horse-hair. It is about 120 mm. to 130 mm. in diameter, and its inside depth is from 40 mm. to 45 mm. The eggs vary much in size and colour, ranging from 27 mm. to 29½ mm. in length and from 20 mm. to 21½ mm. in diameter. The ground-colour is a rich creamy tint with faint lilaceous blotches; the eggs are mottled all over with streaks and blotches of madder-brown."

Dr. Stejneger has given a complete account of the different plumages of this species (Pr. U.S. Nat. Mus. xv. p. 314, 1892), which I herewith transcribe:—

"*Male in nestling plumage* (Fuji, Hondo: *P. L. Jouy*). Of a blackish slate-colour above, with but a very slight suffusion of fulvous, and with very distinct pale buffy shaft-streaks; tail and wings similarly coloured, though more fulvous towards the outer margins of the feathers; the terminal spots of ochraceous-buff on the upper wing-coverts are rather large on the middle row, but nearly obsolete on the larger ones; the dusky spots on the underside are large, and the buffy tinge suffusing the white ground-colour rather pale.

"*The nestling female* differs considerably, being of a dark, dull, tawny olive above, with dusky margins to the tips of the feathers, and narrow buffy shaft-streaks, more or less pronounced; tail and wings more fulvous than in the male, without any slaty cast, and the ochraceous tip to the greater upper wing-coverts rather larger and well-defined; sides, breast, and fore-neck more strongly suffused with ochraceous.

"*Young male after the first autumnal moult* (Fusan, Corea: *Jouy*, April 26, 1886). Differs very much from the male in corresponding plumage. The entire upper surface is of a dull plumbeous or bluish slate-grey, nearly pure on the lower back and wing, and but slightly suffused with fulvous on the head and interscapulars, but more strongly so on the secondaries, and especially the greater upper wing-coverts, which have the tips narrowly margined with pale ochraceous-buff; sides of head dusky, with but faint fulvous suffusion; fore-neck and breast very thickly spotted with large, blackish, fan-shaped, terminal spots, the visible ground-colour between them being pale plumbeous on the chest and lower neck, whitish on the throat and chin, but suffused with ochraceous; rest of under surface pure white, tinged with plumbeous on the flanks and with ochraceous on the sides of the breast, these parts, besides, spotted with blackish like the breast; under wing-coverts ochraceous-rufous.

"*Male after the following* (*second*) *autumnal moult* (Hakodate: *Blakiston*). Resembles the above in the colour of the back, but the head and face are blackish, and the fore-neck and chest are of a uniform dull brownish slate, only the chin being whitish; secondaries and greater upper wing-coverts are still strongly washed with fulvous, but the ochraceous wash on the underside has disappeared, and the under wing-coverts are slate-grey in the middle, being only broadly margined with ochraceous.

"In the fully adult male (Fuji: *Jouy*) all traces of fulvous disappear; the black of the head, fore-neck, and chest becomes darker and pervades the back, and even the under wing-coverts are blackish.

"The adult female is olive above; the fore-neck, chest, and flanks strongly suffused with ochraceous, spotted with black; under wing-coverts bright ochraceous. *In summer* slightly grey above, *in winter* more fulvous."

The measurements of an adult pair of birds are as follows:—

♂ *ad.* Total length 8·5 inches, culmen 0·85, wing 4·8, tail 3·0, tarsus 1·15.

♀ *ad.* Total length 8 inches, wing 4·5.

The figures in the Plate represent a male and a female from Yokohama, both in the Seebohm Collection. [R. B. S.]

MERULA REEVEI (*Lawr.*).

PUNA-ISLAND OUZEL.

Turdus reevii, Lawrence, Ann. Lyc. N. Y. ix. p. 234 (1870).
Merula reevii, Seebohm, Cat. Birds Brit. Mus. v. p. 254 (1881).
Cossyphopsis reevii, Stejneger, Proc. U.S. Nat. Mus. v. p. 478 (1882).

M. rostro et pedibus flavis : suprà schistacea : gutture albo, nigro striato : subtùs brunnescenti-grisea : subalaribus brunnescenti-griseis vel aurantiaco-fulvis (juv.).

Of this species I have at present examined but a single specimen in the Salvin-Godman Collection, and this is unfortunately not mature. The type specimen from Puna Island, in the Gulf of Guayaquil, is in the U.S. National Museum, and has been described by Mr. Seebohm in the 'Catalogue of Birds.' A specimen from Lechugal, in Peru, is in Dr. Raimondi's Collection (Tacz. Orn. Pérou, i. p. 490). These examples are, I believe, the only ones at present known in museums.

Dr. Stejneger considers that this species should be generically separated from the species of *Merula*, on account of the shortness of the genys and the emarginate shape of the tail. This last feature is not shown in the specimen in the Salvin-Godman Collection, but, as the latter is not mature, too much reliance need not be placed on the fact. The coloration and form of *M. reevei* are certainly peculiar, but I am unable to judge of its generic distinction without examining adult specimens.

The following is the description of the type drawn up by Mr. Seebohm (*l. c.*):—The general colour of the upper parts is slate-grey, shading into dark slate on the head; lores brown; ear-coverts dark slate-grey; no trace of eye-stripe; wings brown, the wing-coverts, innermost secondaries, and unemarginated portions of the outer webs of quills slate-grey; tail brown, the central feathers and outside webs of the other tail-feathers slate-grey. Chin and upper throat nearly white, streaked with nearly black; rest of underparts pale brownish-grey, shading into nearly white on the centre of the belly; under tail-coverts nearly white; axillaries and under wing-coverts pale brownish-grey; inner margin of quills pale slate-grey. Bill bright yellow. Wing with the third, fourth, and fifth primaries nearly equal and longest, second primary intermediate in length between the seventh and eighth, bastard-primary 1·1 to 0·95 inch. Legs, feet, and claws pale yellow. Length of wing 4·68 to 4·45 inches, tail 3·93 to 3·55, culmen 0·9, tarsus 1·25 to 1·21.

Judging from the specimen from Puna Island, in the Salvin-Godman Collection, the young bird is dark olive-brown, streaked with buff down the centre of the feathers, which have also triangular spots at the tips of the wing-coverts and inner secondaries. The under surface of the body is brownish-buff, mottled with blackish bars at the ends of the feathers. The under wing-coverts and axillaries are orange-buff. Bill brown, yellow towards the tip. Total length 8 inches, culmen 0·91, wing 4·6, tail 3·3, tarsus 1·25.

The figure of the adult in the Plate is, I believe, drawn from the typical specimen in the U.S. National Museum, having been lent to Mr. Seebohm. The right-hand figure represents the young bird in the Salvin-Godman Collection, and is the one which I have alluded to above.

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MERULA UNICOLOR (*Tickell*).

GREY OUZEL.

Turdus unicolor, Tickell, J. A. S. Beng. ii. p. 577 (1833).
Turdus modestus, Blyth, J. A. S. Beng. xi. p. 460 (1842, nec Eyton).
Petrocincla homochroa, Hodgs. Icon. ined. in Brit. Mus., Passeres, pl. 139, no. 586; id. in Gray's Zool. Misc. p. 83 (1844).
Turdus dissimilis, pt., Blyth, J. A. S. Beng. xvi. p. 144 (1847).
Geocichla dissimilis, Blyth, Cat. B. Mus. As. Soc. p. 163 (1849); Scully, Str. F. viii. p. 284 (1879).
Geocichla unicolor, Blyth, Cat. B. Mus. As. Soc. p. 163 (1849); Jerd. B. Ind. i. p. 519 (1862).
Merula unicolor, Seebohm, Cat. Birds Brit. Mus. v. p. 271 (1881); Oates, in Hume's Nests & Eggs Ind. B. ii. p. 96 (1890); id. Faun. Brit. Ind., Birds, ii. p. 132 (1890).

M. rostro et pedibus flavis vel flavicanti-brunneis: grisea: abdomine albo, gutture, pectore et hypochondriis griseis. ♀ pectore saturatè cinerascente, nigro maculato: axillaribus aurantiaco-fulvis.

This plain-coloured Ouzel is confined to the Indian Peninsula, nesting in the Himalayas and visiting the lower valleys and the plains in winter.

Mr. J. Davidson says that it is "a very common bird in the Valley of Kashmir, but apparently not ranging more than a few miles up the Sind Valley. In the Kashmir Valley itself there were pairs in every village and grove of trees" (Ibis, 1898, p. 25). Colonel Unwin, in the Appendix to Mr. Lawrence's work on Kashmir (p. 151, 1895), observes:—"It is very common all over the Valley, frequenting Chenar groves, gardens, &c."

The species also nests near Masuri and Simla, and Mr. George Reid records it from Rambagh, Almora, and Pithoragarh in Kumaon, and from Kaladunga in the Kumaon Terai (Cat. B. Lucknow Mus. p. 112, 1890). Specimens from the Oude Terai, procured in December and January, are in the Hume Collection. Dr. Scully states that he found the Grey Ouzel in small numbers in the Valley of Nepal in summer, and nesting there. He says that it was always noticed about the skirts of the central woods, often alighting on the ground and running along pretty quickly, and feeding in damp places (Str. F. viii. p. 283). A bird obtained by Dr. Scully in the Sheopuri Forest (7500 feet) in May was considered by him to be a different species and identified by him as *Geocichla dissimilis*, but, after examining his specimen, I regard it as merely the female of *M. unicolor*.

In the Hume Collection is an example of this Ouzel from Darjiling, procured in June, so that the species doubtless breeds in Sikhim, but it is evidently rarer in the Eastern Himalayas than in Kashmir and the north-western hills.

Not many specimens from the plains of India, where the bird is supposed to winter, have been chronicled. The species was described by Tickell from Bansighar in Borabhúm, and it has been recorded from Orissa, Raipur, and Khandala. A specimen obtained by Jerdon in the Eastern Ghats is in the British Museum.

Colonel Unwin says that in Kashmir the song of this Thrush may be heard from April till July; it sings at all hours of the day, and particularly in the morning and evening, and on cloudy days

with rain impending. The song is like that of the English Thrush (*Turdus musicus*), but less full and varied.

Mr. J. Davidson writes:—"We obtained numbers of nests about Gandarbal in Kashmir in May, and there were fresh eggs in others at Srinuggar in the end of June. The nests were at various heights in large trees or on low bushes, and contained from three to five eggs."

From Masuri, Captain Hutton writes:—"This bird arrives in the hills up to 7000 feet, and probably higher, about the end of March, the first being heard on the 26th of that month, at 5000 feet. Every morning and evening it may be heard far and near, pouring forth a short but pleasing song from the very summits of the forest trees. It is a summer visitor only, returning to the plains in early autumn. It breeds in May and June, laying three or four eggs of a dull greenish white-freckled colour, blotched and spotted with rufous, sometimes closely, sometimes widely distributed.

"The nest is neatly made of green moss and roots, lined with finer roots, and usually placed against the trunk of a tree at a place whence spring one or two twigs; sometimes it is placed upon the broad surface of a thick horizontal branch or on a projecting knob."

General G. F. L. Marshall says that a nest taken by him at Naini Tal was in a small shrubby tree, about 7 feet from the ground. "It was made of moss with a few roots intertwined, small, cup-shaped, and only concealed by its likeness to a slight swelling at the fork. It was rather a disreputable structure and difficult to take out, as it consisted chiefly of materials placed in the spaces between the three branches, the cavity being lined with moss."

Mr. A. O. Hume describes the eggs as follows:—"They vary much in shape. Some are very round; others are of a rather elongated oval, but generally there is a tendency to a pyriform shape, there being a slight compression near the small end. The ground-colour is greenish- or greyish-white, and the whole surface is more or less thickly streaked, or irregularly blotched, with dull brownish-red. In some cases the markings are comparatively few and far between, the ground-colour greatly predominating, except at the larger end; while in others the markings are so densely crowded that the ground-colour only shows through here and there, as a pale mottling on a red ground. In all, however, the markings are densest at the large end. The eggs are a shade longer, but even less glossy, than those of *Geocichla citrina*.

"In some eggs the red is brighter and more purple, and some exhibit a very conspicuous zone round the large end. In others the markings, with the exception of the zone at the large end, are very fine frecklings, almost speckly in their character.

"In length the eggs vary from 0·92 to 1·17 inch, and in breadth from 0·7 to 0·83 inch; but the average of twenty eggs is 1·06 by 0·78 inch."

Adult male. General colour above clear slaty-grey, the wing-coverts like the back; bastard-wing, primary-coverts, and quills dusky brown, externally slaty-grey, the inner secondaries like the back; tail-feathers dusky brown, externally slaty-grey; sides of face and sides of neck clear slaty-grey, a little more dusky on the lores and under the eye; throat, breast, and sides of the body light slaty-grey; the lower breast, abdomen, and under tail-coverts white, the latter with dusky margins; thighs pale ashy; axillaries grey, with a faint orange-buff tinge on their edges; under wing-coverts bright orange-buff, with grey bases; quills dusky below, ashy along the inner webs: "bill yellow; legs and feet light brownish; iris reddish" (*A. O. Hume*). Total length 9 inches, culmen 0·8, wing 4·7, tail 2·9, tarsus 1·05.

Adult female. General colour above olive-brown, inclining to slaty-grey on the lower back, rump, and upper tail-coverts; the wing-coverts like the back; bastard-wing, primary-coverts, and quills brown, externally olive, lighter on the primaries, the inner secondaries like the back; tail-feathers like the back, but with a greyish tinge; head like the back, the sides of the face sometimes lighter

grey, with obsolete whitish shaft-stripes to the ear-coverts; lores dusky grey, with a slightly indicated paler line above, reaching beyond the eye; cheeks and throat white, with a distinct malar line of black spots; fore-neck and chest ashy-brown, tinged with pale orange-buff, and having a few scattered triangular spots of black; breast, abdomen, and under tail-coverts white, the latter with narrow dusky margins; sides of body, flanks, and thighs brown, with a slight tinge of orange-buff; under wing-coverts and axillaries orange-rufous: "bill yellow, with a few dusky cloudings; feet vivid orange-yellow; claws yellowish horny; iris brown; eyelid greenish-yellow" (*J. Scully*). Total length 8 inches, culmen 0·85, wing 4·75, tail 3·0, tarsus 1·0.

Young. Rather darker brown than the adult female, and with ochraceous shaft-lines to the feathers of the upper surface, these streaks broader on the wing-coverts, the greater series of which have a triangular ochreous tip; the sides of the throat, breast, and flanks are more plentifully spotted with black than in the adult female.

The specimens described are in the Hume Collection, the male from Raipur and the female from Kashmir. The pair figured in the Plate are in the Seebohm Collection, the male from "India" and the female from Rahun near Etawah. [R. B. S.]

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MERULA AURANTIA (*Gm.*).

JAMAICA OUZEL.

Le Merle de la Jamaïque, Briss. Orn. ii. p. 277 (1760).
Le Merle brun de la Jamaïque, Buff. Hist. Nat. Ois. iii. p. 391 (1775).
White-chinned Thrush, Lath. Gen. Syn. ii. pt. 1, p. 45 (1783).
Turdus aurantius, Gm. Syst. Nat. i. p. 832 (1788).
Turdus leucogenus, Lath. Ind. Orn. i. p. 341 (1790).
Merula saltator, Hill, Comp. Jam. Alm. 1842, teste Gosse, B. Jamaica, p. 140 (1847).
Merula leucogenys, Gosse, B. Jamaica, p. 136, Illustr. pl. xxiii. (1847).
Catharus aurantius, Bp. C. R. xxxviii. p. 3 (1854).
Semimerula aurantia, Baird, Rev. Amer. B. p. 34 (1864).
Mimocichla aurantia, Scl. & Salv. Nomencl. Av. Neotr. p. 2 (1873).
Merula aurantia, Seebohm, Cat. Birds Brit. Mus. v. p. 247 (1881); Stejn. Pr. U.S. Nat. Mus. v. p. 473 (1883).

M. rostro et pedibus flavis: schistacea, pileo vix saturatiore: subtùs schistacea, pectore medio et abdomine albis: tectricibus duabus majoribus internis externè albis, plagam parvam formantibus.

The Jamaica Ouzel is a very distinct and recognizable species, on account of the small white wing-patch which is formed by the white outer aspect of two of the inner greater coverts.

Little has been written about the habits of this Ouzel since Gosse's standard work on the 'Birds of Jamaica,' and Mr. W. E. D. Scott, the most recent collector in this West Indian Island, says that it is one of the species which have suffered from the introduction of the Mongoose into Jamaica, as, though formerly very common, he was only able to obtain a few specimens during his expedition. It is more frequently heard than seen, and is "found only at the lower levels, in fact down to the sea, in thick woody places" (Auk, x. p. 342).

In Jamaica this Thrush is called the "Hopping Dick" or "Twopenny Chick," and the late Mr. P. W. Gosse has given the following account of its habits:—"The birds on which the peasantry in any country have conferred homely abbreviations of human names are, I think, only such as have something lively and entertaining in their manners. Examples of familiar birds will at once occur to an English reader, and the subject of the present note is by no means an exception to the rule. He is one of the liveliest of our Jamaican birds: in woody places his clear whistle perpetually strikes the ear of the passenger, as he sits among the close foliage, or darts across the glade. Not unfrequently we are startled by a shrill scream in some lonely place, and out rushes the Hopping Dick, jumping with rapidity across the road, almost close to our horse's feet. He greatly reminds me of the English Blackbird, in his sable plumage, and bright yellow beak, but especially when hopping along the branches of some pimento-tree, or upon the sward beneath, in those beautiful park-like estates called *pens*. The keen glancing of his eye, his quick turns and odd gesticulations, the elevation of his long tail almost erect, his nods and jerks have in them an uncommon vivacity, which is not belied by his loud voice, as he repeats a high mellow note four or five times in rapid succession, just preparatory to or during his sudden flights from tree to tree. His notes are various:

sometimes we hear him in the lone wood, uttering *click*, *click*, *click*, without variation of tone or intermission, for many minutes together. His *song*, which I have heard only in spring, is rich and mellow, much like the English Blackbird's; he sits in some thick tree, or wood, particularly at earliest dawn, and pours forth his clear notes in a broken strain, and often in a subdued tone, as if singing only to please himself.

"I happened to wound slightly two of these birds on the same day, which I placed in a cage. They were free and easy from the first, very clamorous, lively, and even headlong in their sudden movements. I found that they would seize and devour with eagerness cockroaches, hard beetles, worms, and even small lizards. I gave them a bunch of the ripe, but dry and insipid, berries of a species of *Ficus*, which they readily picked off and ate. The fruit of this fig they are fond of in a state of freedom; and such is their impudence that they prevent the Baldpate Pigeons, though so much bigger, from partaking. The Baldpates would willingly eat the little figs also, but the Hopping Dicks scream and fly at them, and peck their backs, so as to keep them fluttering from branch to branch, reluctant to depart, yet unable to eat in comfort.

"At the break of day, if we pass along a wooded mountain road, such as that lonely one at Basin-spring, in Westmoreland, particularly when the parching winds called *norths* have set in, in December and January, we see the Hopping Dick bounding singly along the ground in every part; but during the day they resort in numbers to the diminished springs and ponds which yet remain, where, after quenching their thirst, they enjoy the luxury of a bathe.

"In the high mountains behind Spanish Town, this bird is called the 'Twopenny Chick'; but in the parishes of Westmoreland and St. Elizabeth, I have heard him distinguished only by the homely appellation which I have adopted. He is not confined to any particular locality. Dr. Chamberlaine (*Jam. Alm.*) has 'never seen him in the lowlands.' But around Bluefields he is abundant, especially in the little belt of wood that girds the sandy sea-beach at Belmont, where one may meet with him at all times. In the pastures of Mount Edgecumbe he is no less common. In the highest districts, as Bluefields Peaks, though I have sometimes seen him, he is chiefly represented by his congener, the Glass-eye: in the solitudes of Basin-spring, a lower elevation, both species are numerous.

"In some 'Contributions to Ornithology,' by Dr. Richard Chamberlaine, published in the Companion to the Jamaica Almanack for 1842, this bird is described. The following observations are there quoted from a letter of Mr. Hill's to the Doctor:—'I paid a visit the other day to the Highgate mountains, a district in which our native Ouzel, the Hopping Dick, is exceedingly abundant. On asking one morning the name of the bird, whose clear, mellow-toned whistle I was then listening to, a negro told me it was the *Hopping Dick*, and that they "always hear him when the long days begin." The long days had not yet begun; but at early dawn, while the distant horizon was seen but faintly gleaming through the dull grey break of daylight, and many of these Merles were gliding from one thicket to another, and dashing across the road with that bounding run from which they derive the sobriquet of Hopping Dick, one bird anticipated the season of song, by repeatedly sounding two or three cadences of that full deep whistle with which he salutes the lengthening year.

"'The forests skirting the mountain are his favourite haunt. If he frequents the open slopes and crests of the hills, he glides from tree to tree, just above the surface of the grass. If he rises above the lower branches of the pimento, or into some of the loftier shrubs, it is to visit the *Tillandsias*, or parasitical wild-pines, to drink from within the heart-leaves at those reservoirs of collected dews which are the only resource of the birds in these high mountains. His dark sooty plumage, his brilliant orange bill, and his habit, when surprised or disturbed, of escaping by running or flying low, and sounding all the while his alarm scream till he gets away into the thicket, completely identify him with the European Blackbird.

"'It was in the month of July, in 1834, that I first heard the song of this Ouzel, which I would call *Merula saltator*, as this name preserves his distinctive sobriquet of Hopping Dick, and refers to his characteristic length of legs, both at the tarsus and the thighs. The shock of an earthquake had wakened all the living tenants of the plantation at which I was staying, when the voice of this bird, as the alarm lulled into silence, was heard from a small coppice of cedar-trees, clear and mellow. Though it was less varied than the song of the European Blackbird, it was very much like its tones when it is heard over distant fields on a summer's morning. I had been apprised that I should hear it there, for it had sung in that grove daily at that season for three or four years; and though under the disadvantage of being an anticipated song, it was a very agreeable recognition of the melody of the European bird.

"'The next time I heard his music was in the month of May, 1836, in the same mountains. The rains of the season had terminated, or only mid-day showers fell, the mornings and evenings being refreshing and brilliant. It was now not a single one of these birds I heard singing lonely in a sequestered cluster of trees, but a hundred of them far and near, blending their voices together, or vying with each other in rivalry of song. My frequent weekly journeys in these districts, from this period to the end of August, were always cheered by this simultaneous outburst of melody from the *Merula saltator*.'

"I found a nest of this bird one day in the middle of August; it was affixed to the highest perpendicular limb of a rather tall pimento in Mount Edgecumbe, and consisted of a rude cup formed of the slender roots of pimento, and placed on a platform of leaves and small twigs. It contained two young, almost fledged, which flew to the ground before they could be seized, and one abortive egg. The young displayed the plumage of the adult, even to the white webs on the two coverts; but the eyes were dark greyish-brown, the beak blackish, and the feet dull horny yellow. The egg measures $1\frac{4}{10}$ inch by $\frac{9}{10}$; it is white, thickly splashed with dark and pale reddish-brown. Sometimes, as I have been informed, a decaying stump is selected, or any other convenient hollow, into which the bird carries 'plantain trash,' or similar materials, and forms a rude nest, laying three or four eggs. Mr. Hill gives me a statement of a locality which is intermediate between these, observing, 'A friend of mine found the nest of a Hopping Dick. It was built amid the dry leaves that had lodged within the forks of a low branch of a mango-tree. It was a structure of small sticks, loosely woven, in the centre of which the young birds nestled among dried foliage.'"

Adult. General colour above dark slate-colour, slightly browner on the hind-neck and sides of neck; crown of head somewhat blacker, as also the sides of the face; wing-coverts like the back, two of the inner greater coverts broadly margined with white for nearly the whole of their outer web; quills and tail brown, externally shaded with slate-colour; chin white; throat slaty-grey, becoming paler on the fore-neck and rest of the under surface, the centre of the throat and abdomen white; under tail-coverts slaty-black, with a triangular spot of white near the end of the feather; under wing-coverts and axillaries slaty-grey, edged with white; quills greyish below, more ashy along the inner webs: "bill bright orange, blackish at tip; feet deep fulvous; iris dull orange" (*P. H. Gosse*). Total length 9 inches, culmen 1·0, wing 4·75, tail 3·75, tarsus 1·55.

Adult female. Apparently does not differ from the male. Total length 9·2 inches, culmen 1·05, wing 4·4, tail 3·4, tarsus 1·45.

The description of the male is taken from a specimen in the Seebohm Collection, and that of the female from Moneague in the Salvin-Godman Collection, to which it was presented by Dr. Bryant.

The figures in the Plate are drawn from specimens in the Seebohm Collection. [R. B. S.]

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MERULA NIGRICEPS, *Cab.*

JELSKI'S OUZEL.

Turdus nigriceps, Cab. J. f. O. 1874, p. 97 (ex Jelski MSS.).
Merula nigriceps, Seebohm, Cat. Birds Brit. Mus. v. p. 254 (1881).

M. rostro et pedibus flavis: suprà saturatè schistacea: pileo nigro: gutture albo, nigro striolato: pectore et hypochondriis clarè schistaceis, abdomine et subcaudalibus albis: subalaribus schistaceis.

The present species is distinguished by having the upper and under surface of the body slaty-grey, while the very distinct black stripes upon the throat are also a well-marked character, the black head, from which the species takes its name, being less pronounced than might have been expected from its selection as the chief specific character.

The species was first described by Professor Cabanis from Peru, where Jelski met with it at Soriano. It was afterwards obtained by Mr. Stolzmann at Chirimoto (Tacz. Orn. Pérou, i. p. 489). Specimens have been procured at Monji in Ecuador by the late Clarence Buckley and are in the Salvin-Godman Collection in the British Museum.

The Seebohm Collection contains specimens from the Sierra of Santa Cruz in Bolivia, collected by Mr. Garlepp. The species has also been procured on the Sierra of Cordova by Dr. A. Döring and Mr. Schulz (Cab. J. f. O. 1878, p. 195).

Adult male. General colour above dark slaty-grey, a little clearer grey towards the lower back, rump, and upper tail-coverts; wing-coverts like the back; bastard-wing, primary-coverts, quills, and tail-feathers blackish, externally edged with slaty-grey; crown of head and sides of face black; cheeks black, streaked with white; throat white, broadly streaked with black; under surface of body from the lower throat downwards entirely slaty-grey, with the middle of the abdomen white; under tail-coverts white with slaty-grey bases; under wing-coverts and axillaries dark slate-colour; quills dusky below, ashy along the inner webs. Total length 8·5 inches, culmen 0·9, wing 4·55, tail 3·4, tarsus 1·2.

Adult female. Different from the male. Brown above, inclining to slaty-grey towards the rump and upper tail-coverts; wing-coverts brown like the back, the quills and tail-feathers ashy-brown, margined with lighter brown; crown of head and sides of face brown, the ear-coverts with narrow pale shaft-lines; cheeks whitish, with a distinct malar streak of blackish-brown; throat white, streaked with brown; remainder of under surface of body ruddy brown, the centre of the breast, abdomen, and thighs ashy; under tail-coverts white, with broad ashy-brown edges to the feathers; under wing-coverts and axillaries ruddy brown like the breast. Total length 7·5 inches, culmen 0·85, wing 4·1, tail 2·7, tarsus 1·15.

The description of the adult male is taken from a specimen from Chirimoto in the Seebohm Collection, and that of the adult female from a Tambillo example in the same Collection. The latter bird is figured in the Plate, and the figure of the male is apparently taken from the Chirimoto specimen above mentioned. [R. B. S.]

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MERULA SUBALARIS, *Leverk.*

BEHN'S OUZEL.

Merula subalaris, Leverkühn, P. Z. S. 1887, p. 557.

M. similis *M. nigricipiti*, sed subalaribus et axillaribus albis distinguenda.

To the 'Proceedings' of the Zoological Society for 1887 Seebohm communicated a description of this species by Dr. Leverkühn, who characterized it as nearly allied to *M. nigriceps*, but distinguished by its whiter throat, abdomen, and under tail-coverts, and especially by its white under wing-coverts and axillaries. In *M. nigriceps* the under wing-coverts are slaty-grey and the crown is black, whereas in *M. subalaris* the crown is scarcely darker than the back.

The typical specimen is in the Museum at Kiel, and Dr. Leverkühn, who was in 1887 engaged in naming the birds there, sent it to Seebohm for determination. Professor Cabanis (J. f. O. 1888, p. 113) states that he had also seen the example in question, but had left it to Prof. Behn to describe. He speaks of the locality where it was obtained as "Peru."

Dr. Behn was the naturalist attached to the expedition of the Danish Corvette 'Galathea,' an account of which was published, according to Seebohm, in a book bearing the title, 'Beretning om Corvetten Galathea's Reise omkring Jorden' (Copenhagen, 1849–51). Dr. Behn's specimens collected during the voyage seem to have remained in the Kiel Museum for forty years without being described.

Seebohm (*l. c.*) gives the following note on the discovery of the species:—"In the months of July and August 1847, Dr. Behn appears to have travelled in the valley of the Paraná in South America, for on the 10th of August he shot an example of *Turdus albiventris* at Jaragua, having previously obtained an example of the same species on the 11th of July in the valley of the Rio Grande in the Province of São Paulo. Two days earlier (on the 9th of July) he appears to have been at a place called Jutuba, which is presumably in the same valley of Southern Brazil. Here he obtained a Thrush which appears to belong to an undescribed species."

The figure has been drawn from the typical example lent to Seebohm by Dr. Paul Leverkühn from the Kiel Museum. [R. B. S.]

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MERULA HORTULORUM (*Sclater*).

SWINHOE'S OUZEL.

Turdus sp., Swinhoe, Ibis, 1861, p. 37.

Turdus hortulorum, Sclater, Ibis, 1863, p. 196; Swinhoe, P. Z. S. 1871, p, 367; David & Oust. Ois. Chine, p. 151 (1877); Seebohm, P. Z. S. 1879, p. 805; Stejneger, Pr. U.S. Nat. Mus. xiv. p. 495 (1891).

Turdus pelios (nec Bp.), Cab. J. f. O. 1870, p. 238; Tacz. Bull. Soc. Zool. France, i. p. 149 (1876); David & Oust. Ois. Chine, p. 151 (1877); Tacz. Faune Orn. Sibér. Orient. i. p. 311 (1891).

Turdus campbelli, Swinhoe, Ann. & Mag. Nat. Hist. (4) xii. p. 374 (1873).

Turdus chrysopleurus, Swinhoe, Ibis, 1874, p. 444, pl. xiv.

Turdus dissimilis (nec Blyth), Seebohm, Str. F. viii. p. 437 (1879, pt.).

Merula hortulorum, Seebohm, Cat. Birds Brit. Mus. v. p. 267 (1881); La Touche, Ibis, 1887, p. 216, 1892, p. 412; Styan, Ibis, 1891, p. 332, 1894, p. 335.

M. rostro et pedibus flavis: axillaribus et subalaribus pallidè aurantiacis, corporis lateribus concoloribus: pileo grisescenti- vel olivaceo-brunneo, minimè nigro: gutture albo vel fulvescente, nigro striato: præpectore pallidè cineraceo concolore (♂) vel fusco-nigro striato (♀): pectore toto et abdomine purè albis.

This pretty Ouzel was for a long time considered to be the true *Turdus pelios* of Bonaparte, but there can be no doubt that the description of the latter species indicates the African Thrush which is now universally recognized by that name. In Dr. Taczanowski's 'Faune Ornithologique de la Sibérie Orientale,' a note by Mr. Godlewski informs us that *Merula hortulorum* is very rare in the Ussuri country and on the coast of the Sea of Japan, where it arrives in the first half of May and settles itself in the forests. It is very wary and difficult to obtain. The note of the male surpasses that of all the other Thrushes of Eastern Siberia; it is an indefatigable songster and has a loud voice. It breeds in Ussuri-land, but Godlewski did not succeed in finding its nest.

The species was also met with by Mr. Janskowski on the island of Askold, and more recently by Mr. Kalinowski at Sidemi. The Seebohm Collection contains a fine series from the mouth of the Amoor, procured by the brothers Doerries in April and May, as well as three specimens obtained by Dybowski in Ussuri-land, one being from the Suiffun district. Although Mr. Seebohm had referred a specimen from the Perry expedition to Japan to this species (P. Z. S. 1879, p. 805), Dr. Stejneger (Pr. U.S. Nat. Mus. xiv. p. 496, 1891) came to the conclusion that this specimen did not really come from Japan. He mentions, however, an authentic specimen from the province of Kaga, in Hondo, sent to him by Prof. Ijima, so that the species certainly occurs in the Archipelago.

Although this species was only noticed for the first time in China by Swinhoe in 1861, an undescribed specimen had been for many years in the British Museum, to which it had been presented by that veteran naturalist Mr. John Reeves. Swinhoe met with it first at Macao, in the Camoens Gardens, where, he says, "it was nesting." This was apparently a mistake,

as the species has only been found as a winter visitor to the south of China. The first specimen sent by Swinhoe to Dr. Sclater turned out to be a young *Turdus cardis*, which was apparently despatched by mistake (*cf.* Sclater, Ibis, 1861, p. 37, 1863, p. 196). It was only when Swinhoe returned to England in 1862, with his collections, that the bird was recognized as a distinct species, and was named *T. hortulorum* by Dr. Sclater, after the gardens in which it was first noticed in Macao. Swinhoe afterwards procured specimens at Canton and Amoy, between December and April, and also met with it at Chefoo in Northern China in May.

Mr. Styan has found this Ouzel during its migration through the Lower Yangtze Valley in small numbers both in spring and autumn (Ibis, 1891, p. 332; 1894, p. 335). Near Foochow Mr. Rickett has also met with it, and he has presented a specimen to the British Museum. Mr. La Touche, however, considers it to be rather uncommon there (Ibis, 1887, p. 216), but on the hills to the west of Swatow it appears to be common in winter (Ibis, 1892, p. 412).

The nest is described by Taczanowski as composed of fine bents mingled on the outside with larger stems of dry herbaceous plants and a large number of rootlets and fine elastic stems, more abundantly distributed on the upper edge, and with a smaller number in the internal hollow. On the exterior aspect of the nest these materials are plentifully plastered with clay, mixed with fragments of dry grass. The external diameter of the nest is 4·2 inches, its height 2·0, diameter of the interior 2·75, its depth 1·2–1·6.

An egg collected by Mr. Janskowski at Sidemi is said by Taczanowski to be similar in colour to that of the Common Blackbird of Europe. The ground-colour is pale sea-green, varied with numerous superficial spots of a light rufous, mixed with other streaks of even lighter reddish colour; these streaks are mostly irregular, oblong in shape, and mixed together without any order, after the manner of Thrushes' eggs. Axis 1·0, diam. 0·75.

Adult male. General colour above light slaty-grey, the wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish-brown, externally slaty-grey; tail dark slaty-grey; sides of face, ear-coverts, and cheeks light slaty-grey, with a slight tinge of orange-buff on the hinder part of the cheeks; ear-coverts with very indistinct whitish shaft-lines; throat dull white, with a few streaks of dusky brown; lower throat and fore-neck uniform light slaty-grey; centre of breast, abdomen, and under tail-coverts pure white, the lateral coverts with dusky ashy margins; sides of the breast and flanks rich orange-rufous, including the under wing-coverts and axillaries; sides of lower flanks slaty-grey; thighs light orange-buff; quills dusky below, shaded with ashy-buff on the inner webs: "bill yellowish-brown, yellow at the gape; feet ochreous flesh-colour; iris deep hazel" (*Swinhoe*). Total length 8 inches, culmen 0·8, wing 4·45, tail 2·75, tarsus 1·2.

Adult female. Differs from the male in being darker slate-colour above; the lower back, rump, and upper tail-coverts clear slaty-grey; wings browner than the back, with faint traces of rufous edges on the wing-coverts; tail dull slaty-brown; crown of head, sides of face, and sides of neck like the back, the ear-coverts with whitish shaft-lines; cheeks and throat white, with a few small black streaks, and separated by a broad malar line of black, composed of triangular black spots; lower throat and fore-neck ashy-grey, mottled with triangular spots of black at the ends of the feathers; centre of breast, abdomen, and under tail-coverts white, the latter externally edged with dusky grey; thighs dull orange-rufous; sides of breast and flanks bright orange-rufous, as well as the under wing-coverts and axillaries; quills dusky below, a little more ashy on the inner webs. Total length 8 inches, culmen 0·75, wing 4·35, tail 2·7, tarsus 1·05.

An adult female, according to Swinhoe, had the colours of the soft parts as follows:—"Bill dusky yellow-ochre, patched on the tip and at the base of the upper mandible with light brown; the

angle of the mouth and the inside of the latter bright yellow; eyelids pale yellow; legs, toes, and claws brownish ochre, washed with yellow, conspicuously so on the under surface of the tarsus."

The young male is said by Swinhoe to have no breast-band, but the "bill is light brown, the feet and toes brownish flesh-colour, darkest on the joints of the toes; the angle of the mouth and the inside of the latter orange-yellow."

The descriptions are taken from a pair of adult birds in the Seebohm Collection from the mouth of the Amoor, and the figures on the Plate are also drawn from specimens in the same collection. [R. B. S.]

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MERULA PROTOMOMELÆNA (*Cab.*).

ASSAMESE OUZEL.

Turdus dissimilis (nec Blyth), Blyth, J. A. S. Beng. xvi. p. 144 (1847, ♂); Godwin-Austen, J. A. S. B. xli. pt. 2, p. 142 (1872); Seebohm, Str. F. viii. p. 437 (1879); id. P. Z. S. 1879, p. 805, pl. lxiv.

Geocichla dissimilis, Blyth, Cat. B. Mus. As. Soc. p. 163 (1849, ♂); Jerd. Ibis, 1872, p. 136, pl. vi.; Hume, Str. F. ix. p. 103 (1880), xi. p. 126 (1888).

Turdulus cardis (nec Temm.), Jerd. B. Ind. i. p. 521 (1862).

Turdus protomomelas, Cab. J. f. O. 1867, p. 286.

Geocichla tricolor, Hume, Ibis, 1871, p. 411; id. Str. F. iii. p. 409 (1875).

Merula protomomelæna, Seebohm, Cat. B. Brit. Mus. v. p. 265 (1881); Oates, Faun. Brit. Ind, Birds, ii. p. 133 (1890); Stuart Baker, Journ. Bomb. N. H. Soc. ix. p. 137 (1894); Rippon, Ibis, 1897, p. 104, 1901, p. 544.

♂. *M.* rostro et pedibus flavis: axillaribus et subalaribus aurantiacis, corporis lateribus concoloribus: pileo, gutture et præpectore nigris: dorso cinereo. ♀ præpectore saturatè cinereo, latè nigro striolato: pectore summo et corporis lateribus aurantiaco-castaneis.

The name of *Merula dissimilis* (Blyth) has sometimes been employed for this species, but there can be no doubt that under this title Blyth had confounded two species, the male of his *Turdus dissimilis* being the present bird, and the female *Merula unicolor*. Following the conclusions of Mr. Seebohm (Cat. B. v. p. 265) and Mr. Oates (Faun. Brit. Ind., Birds, ii. p. 134), I also think that the name of *M. dissimilis* had better be dropped altogether, and the more assured one of *M. protomomelæna* adopted.

Blyth records this Ouzel from the neighbourhood of Calcutta, where it may very possibly occur as a visitor in the cold season. Mr. Hume has recorded it from Hill Tippera (Ibis, 1871, p. 411), and specimens from this locality are in the Hume Collection, as well as from the neighbourhood of Dibrugarh, obtained by Mr. Cripps, who says (Str. F. xi. p. 128) that it is rare and evidently only an occasional visitant, three birds having been shot in January 1880. Mr. Stuart Baker, in his paper on the "Birds of North Cachar" (Journ. Bomb. Soc. N. H. ix. p. 137), writes:—"The only bird I have seen of this species was one shot by my taxidermist on the 20th of February, 1893. This was a female, and was obtained on a hill over 3000 feet high, feeding high up in a large tree." Mr. Hume met with it in Manipur (Str. F. xi. p. 126); he writes:—"In April and May Thrushes were very numerous in the eastern hills, but withal very wild and difficult to get at. The present species was the only one at all obtainable. Like the rest, it was always to be found on the ground, rummaging and feeding amongst the fallen leaves; but whereas *Turdus obscurus*, *T. pallidus*, &c. were always off like a flash of lightning at the slighest crackle of a twig within fifty yards of where they were, the present species would often only fly up a few feet on to a bare branch and wait there."

Colonel Godwin-Austen met with it in the Garo Hills (J. A. S. Beng. xli. p. 142).

More recently Colonel Rippon has obtained a female and a nearly full-grown young bird of this Ouzel in the Kalaw district in the Southern Shan States (Ibis, 1897, p. 104). He found the species fairly common between 4000 and 6000 feet. Colonel Bingham has also shown me a young bird from the Mekong River, obtained by Mr. W. Craddock in February 1901.

Adult male. General colour above dark slaty-grey, including the wing-coverts; bastard-wing, primary-coverts, quills, and tail-feathers dark sepia-brown, externally slaty-grey; crown of head and neck black, extending over the hind-neck to the mantle, but not overspreading the latter; sides of face, cheeks, throat, and fore-neck black; remainder of under surface of body from the fore-neck downwards rich orange-rufous, the lower flanks washed with slaty-grey like the back; centre of abdomen and under tail-coverts white, the latter externally edged with dusky grey; thighs orange; under wing-coverts and axillaries rich orange-rufous like the breast; quills dusky brown below, ashy along the inner web: "bill, feet, and claws wax-yellow, more or less orange; iris brown; eyelids yellow" (*A. O. Hume*). Total length 8·5 inches, culmen 0·9, wing 4·8, tail 3·0, tarsus 1·2.

Adult female. Differs from the male in being dark olive-brown above; wings and tail also dark olive-brown, with obsolete orange-rufous margins to the wing-coverts; cheeks, throat, and fore-neck dingy fulvous-brown, plentifully spotted with black; breast and sides of body, under wing-coverts, and axillaries deep orange-rufous: soft parts as in the male. Total length 7·5 inches, culmen 0·85, wing 4·6, tail 2·65, tarsus 1·2.

The female is similar to that of *M. hortulorum*, but is a much darker bird, especially on the throat, which is brown and not white. The orange colour of the under surface is also much deeper and richer in tint, and occupies the whole of the upper breast, whereas in *M. hortulorum* the white continues up to the fore-neck.

Young. Dusky olive-brown, streaked with orange-rufous shafts to the feathers, the wing-coverts tipped with triangular spots of orange-rufous; throat, centre of breast, and abdomen white as in the adults, but obscured by black edgings to the feathers, as are also the orange-rufous sides of the body: "bill wax-yellow, the upper mandible shaded with brown; feet brownish-yellow" (*A. O. Hume*).

It would seem that the male is some time before assuming the black head and neck, for Mr. Hume obtained a specimen in Manipur in April which bears only a few traces of obsolete buff spots on the wing-coverts; and even if it be a bird of the previous year, it must have gone through its autumn moult, and yet it can hardly be distinguished from an adult female, excepting, perhaps, that the orange of the sides of the body is slightly brighter than in the hen birds. "Bill, legs and feet, and eyelid wax-yellow, paler on the eyelids; ends of the claws brownish" (*A. O. Hume*).

The adult male described and figured was obtained near Dibrugarh in Assam in February by the late Dr. Francis Day, and is in the Seebohm Collection. The adult female was obtained at Dibrugarh by Mr. J. R. Cripps in February, and is in the Hume Collection. The young bird described was presented to the British Museum by Colonel G. Rippon, who procured it at Kalaw, in the Southern Shan States, in May 1896. [R. B. S.]

MERULA CELÆNOPS (*Stejneger*).

SEVEN-ISLANDS OUZEL.

Turdus celænops, Stejneger, Science, x. p. 108 (1887); id. Proc. U.S. Nat. Mus. 1887, p. 484.
Merula celænops, Seebohm, Ibis, 1890, p. 98; id. B. Japan. Empire, p. 50 (1890).

M. rostro et pedibus fuscis, mandibula flava: axillaribus griseis: corporis lateribus aurantiaco-castaneis: pileo et gutture nigris: notæo reliquo rufescenti-brunneo. Fœmina pileo et regione parotica brunneis, dorso concoloribus, gutture albicanti-brunneo distinguenda.

This species bears considerable resemblance to *Merula chrysolaus* of Japan, and to *M. protomomelana* of the Burmese countries; but it is distinguished from the former by its black head and throat, and from the latter by having the axillaries grey instead of orange-rufous like the sides of the body.

The species appears to be confined to the Seven Islands, the first examples having been described by Dr. Stejneger from the island of Miyake-shima. These islands are situated about fifty miles from the main islands of Japan, and about a hundred miles south of Yokohama. The typical specimens are in the Smithsonian Institution.

Mr. Holst, who visited the Japanese Islands for Mr. Seebohm, obtained specimens on Fatsizio, an island about seventy miles further to the southward, and examples of both sexes are in the Seebohm Collection. Holst says that it was called "Okawara" by the natives and was found in the bushes about the houses, females being scarcer than males.

Eggs of the present species, of which Mr. Namiye sent sketches to Dr. Stejneger, are said by the latter to show a greater resemblance to the eggs of *M. cardis*, as far as colour is concerned, than to those of the more closely related *M. chrysolaus*; but the shape is somewhat different, apparently agreeing better with those of the latter species.

Adult male. General colour above dark ochreous-brown, slightly more rufescent on the lower back, rump, and upper tail-coverts; wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish, edged with slaty-grey, the inner secondaries externally like the back; tail-feathers blackish, with hoary-whitish fringes at the ends; crown of head and hind-neck, sides of face, throat, and fore-neck black; chin white; throat also slightly tinged with white; remainder of under surface from the fore-neck downwards bright orange-chestnut; centre of abdomen white; thighs blackish; under tail-coverts blackish, tinged with rufous and broadly centred with white; axillaries slaty-grey, tipped with white; under wing-coverts dusky slate-colour, with narrow hoary-grey margins; quills dusky below, rather more ashy on the inner webs: "upper mandible dusky greyish-black, the edges of the basal half, as well as the lower mandible, light yellow, except the end half, which is somewhat dusky; feet brownish grey, yellowish behind and on the heel-joint; iris dark brown; eyelid bright yellow" (*P. A. Holst*). Total length 9·3 inches, culmen 0·95, wing 0·75, tail 3·2, tarsus 1·3.

Adult female. Differs from the male in wanting the black head and throat. General colour above dusky ochraceous-brown, the head like the back; lores dusky blackish; sides of face

dusky brown, with narrow whitish shaft-lines on the ear-coverts; cheeks and throat white, streaked with dusky brown and separated by a malar streak of dusky-brown spots; remainder of under surface of body bright orange-rufous, slightly browner on the fore-neck; abdomen white; under wing-coverts white, with ochreous-brown margins; axillaries and under wing-coverts ashy-grey, with whitish margins: "bill greyish-brown, the gape yellowish" (*P. A. Holst*). Total length 9 inches, culmen 0·9, wing 4·5, tail 3·0, tarsus 1·25.

The female, as might have been expected, bears a close resemblance to that of *M. chrysolaus*, but the upper parts are more of a russet-brown, and the orange-colour of the underparts is darker in *M. celænops*.

The descriptions and figures have been taken from a pair of adult birds in the Seebohm Collection. [R. B. S.]

MERULA CHRYSOLAUS (*Temm.*).

JAPANESE BROWN OUZEL.

Turdus chrysolaus, Temm. Pl. Col. ii. p. 537 (1831); id. & Schlegel, Faun. Japon., Aves, p. 64, pl. xxxviii. (1847); Schrenk, Reis. Amurl., Zool. i. p. 352 (1860); Swinh. P. Z. S. 1871, p. 367; David & Oust. Ois. Chine, p. 152 (1877); Blakist. & Pryer, Ibis, 1878, p. 241.

Turdus chrysolotus, Gray, Gen. B. i. p. 219 (1847).

Merula chrysolaus, Seebohm, Cat. Birds Brit. Mus. v. p. 275 (1881); id. B. Japan. Emp. p. 48 (1891).

M. rostro fuscescente, mandibula flava: pedibus flavis: axillaribus cinereis: hypochondriis aurantiaco-castaneis: pileo dorso concolore, olivascenti-brunneo (♀) vel cinerascente dorso discolore (♂).

The following account of this species is taken from Seebohm's 'Birds of the Japanese Empire' (p. 48):—"The Brown Japanese Ouzel is a resident in all the islands. It is common in Yezzo, congregating in large flocks in the winter (Whitely, Ibis, 1867, p. 199). On the main island it breeds on Fuji-yama, and winters in the plains near Yokohama; but many of the young birds migrate in autumn to Formosa and South China, and it has once occurred in the Lower Amoor (Schrenk, Reis. und Forsch. im Amur-Lande, i. p. 352). I have two examples of the young in first plumage obtained by Mr. Jouy on Fuji-yama, and in the Pryer collection there are fourteen adult birds from Yokohama (Blakiston & Pryer, Ibis, 1878, p. 241). Jouy found it quite common at Fuji in the breeding-season, and it was also found at Chiusenji Lake and at Tate-yama (Proc. U.S. Nat. Mus. vi. p. 279, 1883). I have an example collected by Mr. Ringer at Nagasaki, and Mr. Pryer has recorded it from the central group of the Loo-Choo Islands (Seebohm, Ibis, 1887, p. 174)." From the latter islands Mr. Outram Bangs has also recently recorded it, having examined two specimens sent from Ishigaki by Mr. Owston. Here he says it was observed between February 18th and June 7th, so it probably nests there (Bull. Mus. C. Z. Harvard, xxxvi. p. 264, 1901).

Holst's opinion was that this Thrush was a winter visitor to the Loo-Choo Islands from November to May. He says that it was the most numerous species of Thrush on the islands, and great numbers passed on migration in March (Seebohm, Ibis, 1893, p. 47). He also observed the species on the Tsu-sima, the Twin Islands between Corea and Japan, where he saw some with a flock of *Merula pallida* late in April (Seebohm, Ibis, 1892, p. 88).

The following note by Dr. Nikolski is published in Taczanowski's 'Faune Ornithologique de la Sibérie Orientale' (i. p. 314):—"This Thrush does not extend far towards the north in the island of Sakhalin, but in the central portion of the island it is common enough in the valley of the River Alexandrowka, and nests there, being found exclusively in the ever-green forests. It has not been met with on the northern coast of the island. It appears, however, to be found more numerously in the southern than in the central part of the island, and Poljakow obtained specimens there."

A single specimen was obtained by Von Schrenk in an oak-forest at Aua, in the Ussuri country, on the 21st of August, and Przewalski includes the species in his list of Ussuri birds, but Taczanowski, in the above-mentioned work, suggests that *M. hortulorum* may have been mistaken for *M. chrysolaus*.

The present species visits Southern China, Formosa, and Hainan in winter; and Mr. Styan writes (Ibis, 1891, p. 332):—"The birds of this species which winter in South China cross from the mountainous provinces of Fokien and Chekiang to breed in Japan, some, according to David, travelling as far as the Amoor. Swinhoe gives its range in China from 'Hainan to Pekin,' in which case some individuals must surely pass through the Yangtse Valley on migration. I have, however, never met with them, and insert the species in the doubtful list."

In Formosa Swinhoe observed many of the present species between February and April, but believed them all to be on migration. As, however, he occasionally observed them in pairs, he suggested that they might breed on the island (Ibis, 1863, p. 276). He found a small party of these Thrushes on the 6th of March, in a wood on the Chinlan River, N.E. Hainan (Ibis, 1870, p. 248).

Besides the islands of Formosa and Hainan it also visits the island of Luzon in the Philippines. Here Whitehead met with the species between the 17th of December and the 24th of January on the summit of Mount Data, in the highlands of Lepanto in North Luzon, and he obtained several specimens; it was mingled with the flocks of *Merula obscura*.

Few notes on the habits of this Ouzel have been published, but it seems to be similar to a Redwing in its ways and is said to have a sweet song.

According to Seebohm, the nest is made of much coarser materials than that of *Merula cardis*, and is composed of twigs bound together with long fibres of grass. It is placed in bushes. Eggs of this species in the Pryer collection resemble finely streaked examples of those of the Blackbird.

Jouy says that the nests found by him on Fuji-yama were similar to those of *M. cardis*, but composed of coarser material, and instead of being covered with moss, they were bound together with long fibres of grass. One nest had a piece of straw-rope and a bit of old blue cotton cloth in it, such as is used by the natives in making sandals or "warajies."

The eggs are described by Jouy as "pale bluish, blotched and speckled all over with brown and lilaceous; they average slightly smaller than *M. cardis*, being about 27 mm. by 20 mm."

Adult male. General colour above russet olive-brown, the wing-coverts like the back; bastard-wing, primary-coverts, and quills light sepia-brown, externally ashy-brown, the inner secondaries externally russet-brown like the back; tail-feathers ashy-brown, washed on the edges with olive-brown, the outer feather edged with white along the tip of the inner web; crown of head a little greyer than the back; the lores, sides of face, ear-coverts, and throat blackish, shading off behind the ear-coverts into the brown colour of the sides of the neck, the lower throat being also browner and shading off into the orange-chestnut of the fore-neck and chest; the sides of the body also bright orange-chestnut; centre of breast, abdomen, and under tail-coverts pure white, the latter with rusty-brown edges to the feathers; axillaries and under wing-coverts pale ashy-grey, with a faint whitish edging, the coverts near the edge of the wing slightly tinged with rufous: "bill dusky brown, the lower mandible yellow; eyelid yellow; feet brighter yellow" (*Holst*). Total length 9·5 inches, culmen 0·9, wing 5·15, tail 3·3, tarsus 1·2.

Adult female. Differs from the male in having the head russet olive-brown like the rest of the upper parts; there is no black on the sides of the face and throat, the ear-coverts being dusky brown, the lores also dusky blackish, with a line of cinnamon-buff above; the throat is white, distinctly streaked with dusky brown and showing a broader malar streak on each side of the throat;

the fore-neck, chest, and sides of body orange-rufous, the former somewhat overshaded with brown; centre of breast, abdomen, and under tail-coverts pure white as in the male, the latter with brown edges to the feathers; under wing-coverts and axillaries duller ashy-grey than in the male, with a slight orange wash on the coverts. Total length 9 inches, wing 4·85.

It should be noted that a bird from Hakodadi, determined by Henry Whitely as a female, is exactly like the adult male.

The *young male* after its first moult resembles the adult female, and has the throat white streaked with brown. The orange-colour on the sides of the body is lighter than in the adults and inclines more to a cinnamon tint. A male procured by Mr. Ringer at Nagasaki in February has the throat dusky brown only at the base, which seems to indicate that the fully adult plumage is not assumed till after the second moult. Young birds can always be recognized by the pale buff tips to the greater wing-coverts.

Young. Brown like the old female, but having a broad eyebrow of cinnamon-buff, the feathers of the ear-coverts and the entire upper surface mesially streaked with buff, and the greater wing-coverts having triangular spots of the same colour at the tip; throat buffy-white, without dark stripes; chest and sides of body cinnamon-buff, the breast and abdomen white, all these underparts largely spotted with dusky brown; under wing-coverts and axillaries dull ashy-grey.

The descriptions are taken from specimens in the Seebohm Collection; those of the male and female from specimens collected near Yokohama by Mr. Harry Pryer, and that of the young bird from a specimen obtained by Blakiston near Hakodadi. The figures are drawn from a male from Yokohama and a female from Formosa in the Seebohm Collection. [R. B. S.]

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MERULA JOUYI (*Stejneger*).

JOUY'S OUZEL.

Turdus obscurus (pt., nec Gm.), Jouy, Proc. U.S. Nat. Mus. vi. p. 227 (1883).
Merula obscura (pt.), Blakist. Chrysanth. 1883, p. 34.
Turdus chrysolaus (pt., nec Temm.), Blakist. Chrysanth. 1883, Febr., sub No. 263.
Turdus jouyi, Stejn. Proc. U.S. Nat. Mus. x. p. 4 (1887).

Similis *M. chrysolao*, sed rostro breviore, et axillaribus griseis rufo lavatis distinguenda.

Dr. Stejneger, in describing this species from the main island of Hondo in Japan, says that it is "similar to *T. chrysolaus*, but the bill is smaller, and the axillaries and the greater under wing-coverts are strongly suffused with rusty."

He further writes:—"This form has the bill nearly as small as in *T. obscurus*, and the breeding birds at least, in a general way, more resemble the latter bird than *T. chrysolaus*; they are easily distinguished, however, by the different wing-formula and the absence of distinct white markings on the sides of the head.

"Undoubtedly Jouy's Thrush is more closely allied to *T. chrysolaus*. The smallness of the bill, however, is at once apparent, and the coloration of the axillaries and under wing-coverts is considerably different, showing, as it does, a strong suffusion of the rusty color of the flanks, while in *T. chrysolaus* the axillaries and greater wing-coverts are pure grey. The two species seem also to differ in the coloration of the throat. In the adult male birds of *T. chrysolaus* the feathers of this part are uniform sooty-black clear to the greyish base, and more or less mingled with rusty, according to the season. In *T. jouyi* the sexes seem not to differ in this respect, for both birds of the breeding pair which Mr. Jouy collected have the throat pure white, streaked with dusky, and there can be no doubt that both these birds are adult. They possess, moreover, a faint trace of a superciliary stripe behind the eye, and, on the whole, present features somewhat intermediate between the two old species, without, however, forming any connecting-link between them.

"A bird of the year, collected by Mr. Jouy at Tokio, on March 1, 1883, I refer with some doubt to the present form. It has, however, the small bill and the axillaries strongly tinged with rusty, in these respects differing from a bird of corresponding age and undoubtedly referable to *T. chrysolaus*. The greater richness of the rusty and olive color I take to be due to season."

Seebohm did not believe in the distinctness of *Merula jouyi*, as will be seen by his remarks (Birds Japan. Emp. p. 48):—

"Dr. Stejneger has described what he supposes to be a new species of Thrush from the mountains north of Yokohama, under the name of *Turdus jouyi* (Stejneger, Proc. United States Nat. Mus. 1887, p. 4). It is said to have a smaller bill, and to be more or less suffused with chestnut on the axillaries and under wing-coverts. The examples obtained were a breeding pair, but both appear to have been in female plumage. They were probably birds of the previous year of *Merula chrysolaus*, possibly of a late brood, and more immature than usual. The colour of the axillaries is more liable to variation than some other parts. In *Merula fuscata* it varies from pale

grey to deep chestnut, and in *Merula cardis* from slate-grey to orange-chestnut. I have five examples of *Merula obscura* in which the axillaries are suffused with buff; and there is an example of *M. chrysolaus* itself in the Paris Museum, collected by l'Abbé Fauire near Hakodadi, in which the axillaries and under wing-coverts are considerably suffused with buff."

Without having seen the typical specimens, it is somewhat difficult to estimate the value of the specific characters assigned to *Merula jouyi*. Much that Seebohm says is undoubtedly true respecting the species, and the fact that both male and female of *M. jouyi* had white throats and were breeding in that plumage is confirmation of the fact, already mentioned, that it is probably only in the third year that the full plumage of the male is assumed. With regard to the tinge of rufous on the axillaries, I entirely agree with Seebohm that it is not a character of specific importance, and many specimens in the British Museum show a more or less rufous tint on these feathers. The smaller bill, however, is decidedly puzzling to explain, and it is often accompanied by a more or less distinctly marked eyebrow.

It is possible that a certain amount of interbreeding takes place between *Merula chrysolaus* and *M. obscura* when the two species return to their northern nesting-haunts, as they appear to do generally in company, but a closer observation of a carefully collected series will be necessary before the distinctness of *M. jouyi* as a species can be fully determined. [R. B. S.]

MERULA ERYTHROPLEURA (*Sharpe*).

CHRISTMAS-ISLAND OUZEL.

Turdus erythropleurus, Sharpe, P. Z. S. 1887, p. 515.
Merula erythropleura, Lister, P. Z. S. 1888, p. 517 ; Sharpe, Monogr. Christmas Isl. p. 49 (1900).

M. olivaceo-brunnea: rostro et pedibus flavis: subtùs aurantiaco-rufa, abdomine albo: gutture, præpectore et subalaribus cinerascentibus.

This species, which belongs to the group of rufous-flanked Ouzels, was discovered on Christmas Island, in the Indian Ocean, in 1886, during the survey of H.M.S. 'Flying Fish,' under the command of Captain Maclear. In 1887 Mr. J. J. Lister also visited the island in H.M.S. 'Egeria,' and he has given the following note on the species:—"This bird was common all through the bush. As one was examining rotten wood for beetles, &c., they would often come quite close and watch our operations with a bright curious eye, and Captain Aldrich has described how one of them picked a grub from his hand. I heard nothing that could be called a song. They often give a shrill sibilant note as they fly off, which may be followed by a *chuck-chuck-chuck*, and they often repeat a soft *chick* six or seven times, quickening at the finish." Mr. Lister found an old nest in the angle of a number of ascending branches of a sapling. It was made of decayed wood and leaf-mould, caked together into a tenacious mass, covered on the outside with a beautiful green moss-like *Hepatica*, which is common on the tree-trunks, and lined with the black hair-like palm-fibres made use of by the *Zosterops* for the same purposes.

Dr. C. W. Andrews, who spent nearly a year on Christmas Island, has given me the following note:—"The Ground-Thrush is common everywhere, but is most numerous near the coast. Like the other birds of the island it is very tame, and when I was breaking up rotten wood, searching for beetles, several of them would stand quite close in readiness to pick up any grubs that were uncovered. Its food consists of insects, seeds, any carrion it can find, and I have seen one kill a small brown lizard, though it seemed to have some difficulty in doing so. When hunting for insects among the dead leaves, the colours of the plumage harmonize so exactly with the surroundings that, were it not for the bright yellow beak and eyelids, the bird would be almost invisible. The alarm cry is much like that of our Blackbird, and in the pairing-season (December to January) the male has a song something like that of the English Thrush, but harsher and less varied.

"The nest is made of fibres of the wild sago-palm (*Arenga listeri*), skeleton leaves, and other vegetable fibre; it is not mud-lined. One nest was taken from the crown of a screw-pine (*Pandanus*), another from the hollow top of a broken tree-trunk, some 15 feet from the ground. Eggs were found in December, and in the following month young birds just able to fly were numerous, and continued to be so till April."

The clutches of eggs brought by Dr. Andrews are one, two, and three in number. The colour varies considerably, in that two eggs are so thickly mottled with rufous that the bluish-green ground-colour is almost entirely obscured, while another type is much more sparsely scattered with rufous-brown and underlying spots of lilac-grey. Axis 1·2–1·25 inch; diam. 0·8–0·85.

Adult female. General colour above ashy olive-brown, a little clearer brown on the lower back, rump, and upper tail-coverts; wing-coverts like the back, the greater series somewhat fulvous-brown externally, with a yellowish-buff spot at the ends (doubtless the remains of young plumage); bastard-wing, primary-coverts, and quills dusky brown, externally ashy on the primaries, the others externally like the back; tail-feathers dusky brown, washed with olive-brown on both webs; crown of head ashy-brown, the feathers at the base of the forehead and above the eye whitish; lores dull ashy; sides of face, ear-coverts, and cheeks light ashy-brown; throat white, streaked with brown along the sides; fore-neck, breast, and sides of body light tawny, deeper on the latter, with a shade of ashy on the fore-neck and chest, the feathers on the flanks edged with ashy-whitish; centre of lower breast, abdomen, and under tail-coverts white, the latter edged with pale tawny; axillaries and under wing-coverts ashy-whitish, with a slight tinge of tawny; quills dusky below, ashy along the inner web. Total length 7·8 inches, culmen 0·9, wing 4, tail 3, tarsus 1·2.

Adult male. Similar to the female in colour. Total length 8 inches, culmen 0·98, wing 4·3, tail 2·95, tarsus 1·25.

In the series brought home by Dr. C. W. Andrews from Christmas Island very little difference in colour can be detected. Specimens obtained in February and March are a little more olive above and less grey on the chest than those procured in October and November, but the differences are scarcely perceptible.

Young. Darker and more olive-brown than the adults, the feathers of the head and back centred with yellowish-buff shaft-lines, and the wing-coverts tipped with triangular spots of buff; ear-coverts dark brown, with whitish shaft-lines; cheeks buff, separated from the buffy-white throat by a malar line of ashy-brown spots; fore-neck, breast, and sides of body reddish-buff, mottled with dusky spots at the end of the feathers; abdomen white, with dusky spots on the feathers; under tail-coverts white, with reddish-brown margins.

The description of the female is taken from the type specimen, and that of the male and young from birds obtained by Dr. Andrews. The specimens figured in the Plate are in the Seebohm Collection, and were obtained on Christmas Island by Mr. J. J. Lister. [R. B. S.]

MERULA OBSCURA (*Gm.*).

EYEBROWED OUZEL.

Dark Thrush, Lath. Gen. Syn. ii. pt. 1, p. 31 (1783).
Turdus obscurus, Gm. Syst. Nat. i. p. 816 (1788); Swinh. P. Z. S. 1871, p. 367; Hume & Davis. Str. F. vi. p. 251 (1878); David & Oust. Ois. Chine, p. 153 (1877); Hume, Str. F. xi. p. 130 (1888); Seebohm, Ibis, 1879, p. 4; Blakist. Amended List B. Japan, p. 59 (1884); Stejn. Bull. U.S. Nat. Mus. no. 29, p. 307 (1885); Tacz. Mém. Acad. Imp. Pétersb. (7) xxxix. p. 306 (1891).
Turdus ochrogaster, Sparrm. Mus. Carlss. iv. pl. 85 (1789).
Turdus pallens, Pall. Zoogr. Rosso-Asiat. i. p. 457 (1811); Temm. & Schl. Faun. Jap., Aves, p. 63, pl. xxvii. (1847).
Turdus seyffertitzii, Brehm, Lehrb. eur. Vög. ii. p. 972 (1824).
Turdus rufulus, Drap. Dict. Class. d'Hist. Nat. x. p. 443 (1826).
Turdus werneri, Géné, Mem. Ac. Torino, xxxvii. p. 296, pl. 2 (1834).
Turdus pallidus (nec Gm.), Temm. Man. d'Orn. iii. p. 97 (1835); Degl. & Gerbe, Orn. Eur. i. p. 402 (1867); Godwin-Austen, J. A. S. Beng. xlv. pt. 2, p. 196 (1876).
Turdus modestus, Eyton, P. Z. S. 1839, p. 103.
Planesticus obscurus, Bp. Cat. Parzud. p. 5 (1856).
Turdus davidianus, Milne-Edwards, N. Arch. Mus. d'Hist. Nat. i., Bull. p. 26 (1865).
Turdus chrysolaus (nec Temm.), Godwin-Austen, J. A. S. Beng. xxxix. pt. 2, p. 101 (1870); Dybowski, Bull. Soc. Zool. France, 1883, p. 476.
Geocichla obscura, Jerd. Ibis, 1872, p. 136.
Turdulus pallens, Godwin-Austen, J. A. S. Beng. xliii. pt. 2, p. 178 (1874).
Merula obscura, Seebohm, Cat. Birds Brit. Mus. v. p. 273 (1881); Pleske, Wissench. Result. Przew. Reis. ii. p. 16 (1889); Oates, Faun. Brit. Ind., Birds, ii. p. 134 (1890).

M. rostro fusco, mandibulâ flavâ: pileo dorso ferè concolore, minimè nigro: axillaribus grisescentibus, haud hypochondriis aurantiacis concoloribus: supercilio distincto albo insignis.

This Ouzel is found from the Valley of the Yenesei eastwards to Kamtchatka. In winter it migrates to India, China, and the Malay Archipelago, and during that season it has occurred on several occasions in Europe.

In the Valley of the Yenesei this species was first met with by Mr. Seebohm during his celebrated expedition to Siberia in 1878. He writes:—"During the first week of June the forests were practically impassable. The deep snow was in process of melting, and too soft to bear the weight even when distributed over a pair of snow-shoes each measuring 4 feet 6 inches long and 10 inches wide. On some of the steeper slopes exposed to the south, small oases of bare ground were to be found. One of these, close behind my quarters, thinly covered over with bushes, was a very prolific hunting-ground for me during the spring migration. On this piece of ground, on the 7th of June, I had the pleasure of shooting my first brace of Dark Thrushes (the *Turdus pallens* of

Pallas, but not the *Turdus pallidus* of Gmelin). A couple of days after I shot two more on the same ground. As soon as the forests were passable I made daily rambles, and almost always heard the song of this bird. *Turdus dubius* had gone further north to breed; but this species was evidently stopping and making preparations to build its nest. . . I did not meet with this interesting Thrush farther north than the Arctic Circle; but on my return journey, in lat. 66°, on the 3rd of August (and afterwards in lat. 63°, on the 6th of August), I shot the young in first plumage, with spotted backs and spotted breasts" (Ibis, 1879, pp. 4, 5).

On his expedition to the Yenesei in 1896, Mr. H. Leybourne Popham did not succeed in finding the nest of this Thrush, and only obtained a single specimen on the Kamina Tungooska River (Ibis, 1897, p. 92). On his third visit to the Yenesei, Mr. Popham was more fortunate, as he found three nests at Inbatskaya (lat. 64° N.); but the species was not noticed at Yeniseisk (Ibis, 1898, p. 493).

In Taczanowski's work on the birds of Eastern Siberia occur the following notes, summarizing the observations of the Russian naturalists on the present species. Godlewski states that it is common in the neighbourhood of Lake Baikal and throughout the whole of Dauria, but is more plentiful in the former country than in the latter. During migration it associates with other Thrushes, especially with *M. ruficollis*, *M. fuscatus*, and *M. naumanni*, but it arrives much later than all the others, and does not put in an appearance till the latter part of May. A large proportion of these birds remain to nest in the southern part of the Lake Baikal region, commencing to build in the first half of the month of June. Dybowski found the species much rarer in the Ussuri region than in Dauria. Dr. Radde observed the first pair on the Tarei-noor on the 15th of May, 1856, and in the autumn the migration commenced during the first half of September, and the birds were most plentiful between the 14th and the 19th, while on the islands of the Onon River isolated individuals were seen up to the 8th of October. In the Boureia Mountains the chief passing of migrants took place on the 29th of September, when they followed the course of the high forests skirting the Amur River. In the autumn of 1857 the migration commenced on the 7th of September, and was at its height between the 19th and 21st of that month.

According to Dr. Dybowski, it is the commonest Thrush in Kamtchatka, arriving there at the beginning of May, the young being able to fly at the end of June. Dr. Stejneger obtained specimens on Bering Island in June. He says that they visit the island in the spring, but without any regularity. In 1883 the first was observed on one of the first days of June, and during the week between the 10th and 17th of the same month two males and four females were secured; they were extremely shy and always met with singly.

The species does not seem to have been noticed on the Kuril Islands, but must undoubtedly occur there. The Seebohm Collection contains two examples from Yokohama (*Pryer*) and Nagasaki (*Ringer*), but it was supposed by Blakiston (Amended List B. Japan, p. 26) not to occur on the northern island of Yezo. A specimen procured at Hakodate by Mr. Henson is, however, recorded by Dr. Stejneger (Pr. U.S. Nat. Mus. xv. p. 317), who observes:—"The scarcity of the Eyebrowed Thrush in the northern portions of Japan is very remarkable, when we consider that it is common in Kamtchatka."

In his 'Birds of the Japanese Empire' (p. 49), Mr. Seebohm remarks that it is a very rare winter visitor to Japan. Two examples were in the Pryer Collection from Yokohama (Blakist. & Pryer, Tr. As. Soc. Japan, 1882, p. 166). He also records an example in the British Museum, obtained by Capt. St. John near Nagasaki. Jouy writes (Pr. U.S. Nat. Mus. vi. p. 277, 1883) that it was rather rare at Tate-yama, and appeared to visit Shinshiu only in the autumn. It was generally found about streams and in thickets, and a few were caught on the hills by the bird-catchers.

Holst procured a couple of specimens on Okinawashima in the Liu Kiu Archipelago, and Mr. Alan Owston met with the species on Ishigaki on February 22nd and March 1st (Bangs, Bull. Mus. C. Z. Harvard, xxxvi. p. 264). Kalinowski noticed it in Corea only on migration (Tacz. P. Z. S. 1888, p. 454), and Mr. Campbell procured a female bird near Söul in May. He says that he only observed the species on one other occasion, in the forest-region south of Păik-tu San, on the 4th of October, and he thinks that these two dates probably represent the two periods during which it passes through Corea from its breeding-grounds to its winter-quarters, and *vice versâ* (Ibis, 1892, p. 232).

Przewalski met with the species in S.E. Mongolia, in Ordos, and Alashan, but only as a late migrant in spring. In S.E. Mongolia he obtained his first specimens on the 9th of May, 1871, and in the following year in Alashan on the 20th of May. In autumn he met with the species at the end of August in the valley of the Chuan-che on migration, and in Alashan throughout half of September. In 1880, on the autumn migration in the middle of September, he obtained specimens in the south of the Gobi desert, and it was met with in Alashan at the end of August. On the 29th of October, 1884, a specimen of this Thrush was picked up dead not far from Gass, having met with some accident or perhaps died of starvation. Przewalski says that both in spring and autumn this species is met with in small parties of from three to ten individuals, which frequent the treeless districts of the steppes or the saxoul-thickets, as, for instance, in Northern Alashan (*cf.* Pleske, *l. s. c.*).

In Northern China and Mongolia, Abbé David says it is very abundant during the periods of migration, nesting on the mountains and in the woods, and but seldom visiting the plains. Père Hugh obtained two specimens in Shen-si (Sharpe, Ornis, 1901, p. 184), and Swinhoe records it from Chefoo and other places. He says it is found from Malacca to Pekin, and westwards to Szechuen (P. Z. S. 1871, p. 367). Abbé David also met with it in Moupin. Mr. Styan says that the species passes through the Lower Yangtze Valley on migration (Ibis, 1891, p. 318); it is scarce, but has been noted at Shanghai in March and May. Mr. Rickett has sent specimens to the Museum from Kuatun and Neuchang; and Mr. La Touche, in his paper on the birds of N.W. Fohkien, says that this Thrush passes Kuatun in April, May, and November (Ibis, 1899, p. 177). He also records it from Foochow in November, February, and the beginning of May, and says that two specimens were obtained by his shooting-boy in April on the hills west of Swatow (Ibis, 1892, p. 413).

Mr. La Touche also found it very common near Foochow in November 1884, and he shot specimens at Peline early in May, but it was not noticed in the plains during spring (Styan, Ibis, 1887, p. 217). Swinhoe was the first to find the species in Formosa, where also Mr. La Touche obtained a specimen on the 19th of March in the northern part of the island (Ibis, 1898, p. 356).

This Ouzel is said by Mr. Oates to be a more or less abundant visitor to the whole of Burma, and many specimens are in the Hume Collection from Tenasserim, collected by Mr. Davison. Colonel Rippon records it from Loi Maw, in the S. Shan States (7800 feet), in April (Ibis, 1901, p. 544). It is also found in Assam and the neighbouring provinces, for I find that the specimens in the Godwin-Austen Collection from Cherra Poonji and the Eastern Naga Hills are true *M. obscura*, and not *M. fœæ*, as Mr. Oates has made them out to be (Faun. Brit. Ind., Birds, ii. p. 135). Mr. Hume says that the species was common in considerable-sized flocks in the eastern hills of Manipur, and his collection contains several examples from Shillong, obtained by Mr. J. Cockburn (Str. F. xi. p. 130). Mr. Stuart Baker procured one bird out of a flock of five on a high tree, at 3000 feet, in North Cachar (Journ. Bomb. N. H. Soc. ix. p. 136, 1894).

The Assamese Provinces constitute very nearly the western range of the species on its southward journey, but a straggler has been met with by Capt. Wimberley in the island of

South Andaman. In the Hume Collection there is a specimen from Native Sikhim, obtained by Mandelli's hunters, a young bird from Nepal is in Hodgson's Collection, and another from Belgaum was collected by Colonel Butler.

Nor does the species appear to visit Central Asia in any numbers, as Severtzow says that he observed it only near the tower of Vernoje (Dresser, Ibis, 1875, p. 334).

From the Burmese Provinces the winter range of *M. obscura* extends down the Malay Peninsula. Numerous specimens from Malacca are in the British Museum, and Mr. Davison met with the species at Klang, in Selangore. It also occurs in Sumatra, where Carl Boek obtained specimens at Lolo. Though included in the list of Java birds by Dr. Vorderman, there does not seem to be any exact record of its capture in that island.

In Borneo this Ouzel is also known as a winter visitor from northern countries. It has been met with in Labuan by Sir Hugh Low and Governor Ussher (Sharpe, P. Z. S. 1879, p. 338), and Mr. John Whitehead says that it passes through the island every year in considerable numbers during the N.E. monsoon (Ibis, 1889, p. 268). On the Lawas River it was obtained by Mr. J. S. Jameson and Governor Treacher (Sharpe, Ibis, 1879, p. 254), as well as on Muara Island by Governor Ussher (Sharpe, *t. c.* p. 254). Dr. Guillemard met with it at Silam in Darvel Bay, N.E. Borneo (P. Z. S. 1885, p. 415). Mr. Whitehead says that the species was plentiful round Kina Balu up to 8000 feet, going in flocks like Redwings, and uttering a note like that of the latter (Ibis, 1889, p. 268). Dr. Charles Hose has found *M. obscura* on Mt. Dulit in November at 4000–5000 feet.

In the Philippine Islands *M. obscura* seems not to be rare during its winter flight, and several specimens have been received from the neighbourhood of Manila. Mr. Whitehead obtained a couple of specimens in December and again in February in the Lepanto district of North Luzon (Ogilvie Grant, Ibis, 1895, p. 445), and he met with it again in the highlands of Negros in April (id. Ibis, 1896, p. 545). He writes as follows (Ibis, 1899, p. 212):—"A winter migrant to the Philippines, occurring in large flocks in the high mountains of Luzon and Negros; in the latter island it was plentiful as late as the 22nd of April. This Thrush will doubtless be found to extend its migrations over the whole of the Philippines, as it is very common further south, in the island of Borneo, during the northern winter." Messrs. Worcester and Bourns also record the species from Guimaras (Pr. U.S. Nat. Mus. xx. p. 561).

So far as is known, the present species has not been found in any of the other islands of the Malay Archipelago, but has been recorded by Drs. Hartlaub and Finsch from the Pelew Islands (P. Z. S. 1872, p. 89).

Many instances of the occurrence of *Merula obscura* in Europe are on record. Professor Giglioli mentions three instances of its occurrence in Italy: one shot in the neighbourhood of Turin in November 1827, and now in the University Museum of that town; a second shot near Turin in November in 1828, and preserved in the Pisa Museum—these two specimens being the types of *Turdus werneri* of Géné. A third specimen, caught near Siena in the autumn of 1878, is in the collection of Prof. Magni-Griffi at Siena (Ibis, 1881, p. 182). Count Salvadori and Professor Martorelli, in their account of the Siberian Thrushes which visit Europe on occasion (Ornis, 1900, p. 251), mention three more occurrences, viz., in the markets of Rome and Milan, and another bird killed at Palaja, in the province of Pisa (Ridolfi, 'Avicula,' 1897, fasc. iii.).

The species has occurred several times in the south of France, and Mr. Eagle Clarke says that he noticed specimens in the Marseilles Museum (Ibis, 1895, p. 185). Mr. Dresser, in his 'Birds of Europe' (vol. ii. p. 72, pl. ix.), mentions the accidental occurrence of this Ouzel on several occasions

in Germany, and it has also been obtained once in Holland, near Haarlem. Dr. Dubois (Bull. Mus. Belgique, v. p. 99, 1887) records a young bird as having been taken near Brussels in October 1886. It has also been supposed to have been seen in Heligoland, but no specimen was procured (Seebohm, Ibis, 1892, p. 7).

Mr. Seebohm contributed the following note to Mr. Dresser's 'Birds of Europe':—"The Dark Thrush arrived on the Arctic Circle on the 7th June, and frequented the oases of bare ground on the sunny slopes of the banks of the Koo-ray'-i-ka, where it fed upon the previous year's crowberries and cranberries which had been preserved through the winter by the frost. As soon as the snow in the forests was melted, these birds left our headquarters and retired inland to breed. I secured several examples on their first arrival, and afterwards frequently heard their song in the forests. This Thrush is a very poor songster, but he has a splendid voice. He seldom gets beyond two or three notes; but in clearness and richness of tone the few he utters are fully equal to those of the Blackbird. On the 27th June, a day or two before we left the Koo-ray'-i-ka, as I was strolling through the forest extremely annoyed at what I thought was the unreasonable delay of Capt. Wiggins in starting for the tundra, I suddenly forgot all my troubles by seeing a Dark Thrush fly from her nest in a slender spruce fir-tree. I shot the bird, and was soon up the tree. The nest was placed about fifteen feet from the ground, upon a horizontal branch about six inches from the main stem. It was exactly like that of a Fieldfare, but was carefully lined with mud before the final lining of dry grass was placed in it. It contained five eggs resembling small but richly-marked Blackbird's eggs.

"After we left the Arctic Circle, I saw no more of this species until the 3rd of August, on my return journey, when, in lat. 66°, near Sil-o-vah'noff, the village of the unfortunate Scopsi, I shot a young Dark Thrush in first plumage. On the 6th of August, in lat. 63°, I got amongst a brood of young Dark Thrushes, which were uttering loud cries like *tick, tick*. This, I presume, is the Kestrel-like cry alluded to by Latham. I shot one bird from this brood."

Mr. H. L. Popham, who also found the species breeding on the Yenesei River, observes:—"This Thrush has a fine clear voice: he begins his song with a few rich notes, which are not very much varied, and goes off with the same style of ending as in a Blackbird's song. Three nests of this Thrush were found, resembling those of the Fieldfare in construction, at Inbatskaya (lat. 64° N.): one about four feet from the ground on a stump, and another built close to the stem of a fir-tree, on a branch about twenty feet high. The eggs are smaller than any of the other Thrushes' eggs found by us, and average 1·06 inch long by ·75 inch broad" (Ibis, 1898, p. 493). Mr. Dresser (Ibis, 1901, p. 445, pl. ix. figs. 5–8) has described and figured some of Mr. Popham's eggs from the Yenesei, and he observes:—"The number of eggs is four or five, seldom six, and they are smaller than any of the other Siberian Thrushes, averaging 1·06 by 0·75 inch. They are also less subject to variation, and are somewhat darker and more blue in ground-colour. One clutch is rather of the Blackbird type, but the rest are more or less spotted and blotched with rusty-red. The nest is like that of a Fieldfare, strongly built, and lined with fine grass and dry larch-needles."

Mr. Dresser's work also contains the following translation of Dr. Dybowski's notes on this species:—"This Thrush breeds here (in Dauria) and is tolerably common, appearing in the spring about the 20th May. During the nesting-season it inhabits valleys overgrown with larch, fir, and the Cembra pine. It nests on young free-growing fir or larch trees, the nest being placed in a fork or on the boughs near the main stem, at an altitude of about 3 to 5 metres. It is constructed of dried grasses and weeds, worked together with earth and lined with fine grass and dry larch-needles, and is neatly and firmly built. It measures 120 millims. outside diameter, and 100 millims.

in height, the diameter of the cup being 90, and the depth 50 millims. Usually it is well fastened to the bough, and is not easy to detach, the more so as the trees on which it is built are usually slender and tall and the branches thin. Early in June the female lays four or five, seldom six, eggs, and incubation commences at once. Whilst the female is sitting, the male remains at some distance, and in halting, uncertain tones utters its by no means melodious song, which consists of a strophe continually repeated; and it sings more industriously in the morning and at sunset. The female sits close, but is difficult to shoot on the nest, as it is so hidden in the boughs, and when disturbed she slips off and does not soon return. When the young are hatched the old birds attack any intruder. The eggs resemble those of the Blackbird and Fieldfare, and are subject to considerable variation, even in the same clutch. The ground-colour is pale blue, blue-greenish, or dirty blue with a yellowish tinge; and the markings consist of violet-brown shell-blotches and dark olive-brown or rusty-red surface spots. The eggs are either irregularly spotted, sparingly or profusely, or also closely dotted with small spots; in shape they vary much, are short or long, stout or elongated, and more or less glossy, the pores of the shell being scarcely visible: the measurements are very variable—say 29 by 17·5 millimetres, 25 by 18·5, 23·5 by 17·5, 27 by 20, 25·5 by 19·5, 30·5 by 20, 28·5 by 18·5."

Adult male. General colour above olivaceous-brown, the wing-coverts like the back, the margins to the median and greater series slightly paler and more ashy; quills dusky brown, externally olive-brown like the back, the primary-coverts and primaries having a hoary-grey margin; centre tail-feathers dull ashy-grey, the others sepia-brown, externally greyish or olivaceous, the two outer tail-feathers edged with white along the tip of the inner web; crown of head and nape more slaty-grey, as also the ear-coverts; lores blackish, surmounted by a narrow line of white, which continues into a white eyebrow; cheeks and throat slaty-grey, slightly mottled with white bases to the feathers; base of chin and a spot under the eye white; chest fulvous-brown, becoming pale orange-buff on the sides of the body, and browner on the lower flanks and thighs; breast and abdomen, sides of vent, and under tail-coverts white, the latter with dusky-brown edges to the outer feathers; axillaries and under wing-coverts ashy, with narrow whitish margins; quills below dusky brown, with an ashy shade over the inner webs: "bill horny blackish-brown; lower mandible (except the tip, which is dusky), tomia, and angle of mouth pale orange-yellow; feet, including claws, clear yellowish-grey; naked eye-ring and lower eyelash light yellowish-grey; iris dark brown" (*Stejneger*). Total length 8·5 inches, culmen 0·8, wing 4·95, tail 2·95, tarsus 1·25.

The male described, though in full plumage, is of the ordinary colour of the adult, and it should be noted that fully-adult birds have a darker grey throat, perfectly uniform and united to the grey sides of the face. The orange-chestnut colour of the chest and sides of the body varies in intensity, and is much darker in some birds than in others.

Adult female. Differs from the male in its paler coloration and white throat. The eyebrow is as distinct as in the male, and the ear-coverts are dark slaty-grey, with white shaft-lines; eyebrow, a spot under the eye and below the lores, cheeks, and throat white, with a few streaks of brown in the middle of the latter, and with a somewhat well-defined malar band of dusky streaks; chest ashy-brown, tinged with cinnamon like the sides of the body; breast and abdomen white, as in the male: "bill black, the lower mandible greenish horny, yellow at the base; eyelid yellow; feet tawny-yellow; iris dark brown" (*W. Davison*). Total length 7·5 inches, culmen 0·8, wing 4·7, tail 3·4, tarsus 1·2.

Immature males resemble the adult female. The throat is white, with a few brown streaks. There can, however, be little doubt that the male breeds in this hen-like dress.

Young. More ochraceous-brown than the adult female, with longitudinal ochraceous streaks down the centre of the feathers of the upper surface; the wing-coverts and quills edged with ochraceous-buff; under surface of body white, the sides orange-buff, with a very distinct moustachial line of black; the feathers of the under surface broadly spotted or barred with black at their ends.

The description of the male is taken from a specimen obtained by Dr. Dybowski near Lake Baikal, and that of the female from a hen bird collected by Seebohm during his expedition to the Yenesei. Specimens from the last-named locality are also figured. [R. B. S.]

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MERULA SUBOBSCURA, *Salvad.*

SALVADORI'S OUZEL.

Merula subobscura, Salvad. Ann. Mus. Civic. Genov. (2) i. p. 143 (1889); Oates, Faun. Brit. Ind., Birds, ii. p. 135 (1890).

M. similis *M. obscuræ*, sed major, fasciâ superciliari minùs conspicuâ, corporis lateribus pallidioribus: primariis aliter formatis.

This species, the type of which still remains as the single specimen known, was described by Count Salvadori in 1889. I have never seen the specimen, but it was lent by the Count to Mr. E. W. Oates when the latter gentleman was at work on the 'Fauna of British India.' He states (*l. c.*) that the species is "similar to *M. obscura*, but is larger, with the superciliary band less conspicuous, the sides of the body paler ochraceous, and the proportions of the primaries are different."

The type of the species, an adult male, was procured by Signor Fea at Tahó, in the Karen Hills, to the north-east of Toungngoo, in March. Mr. Oates continues:—"The measurements of this specimen are as follows:—Length 10 inches, tail 3·8, wing 5·25, tarsus 1·2, bill from gape 1·0. The third and fourth primaries are subequal and longest; the second shorter than the fifth and longer than the sixth. In *M. obscura* the third primary is the longest, the fourth is rather shorter than the third, and the second is between the fourth and fifth. I have failed to find any example of this Thrush from Burma in the British Museum series." [R. B. S.]

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MERULA PALLIDA (*Gm.*).

PALE OUZEL.

Pale Thrush, Lath. Gen. Syn. pt. i. p. 32 (1783).
Turdus pallidus, Gm. Syst. Nat. i. p. 815 (1788); Gould, B. Eur. ii. pl. 80 (1837); David & Oust. Ois. Chine, p. 151 (1877); Tacz. Faune Orn. Sibir. Orient. p. 309 (1891).
Turdus daulias, Temm. Pl. Col. ii. pl. 515 (1831); id. & Schl. Faun. Japon., Aves, p. 62, pl. xxvi. (1847).
Turdus advena, Swinhoe, Ibis, 1860, pp. 56, 358.
Merula pallida, Seebohm, Cat. Birds Brit. Mus. v. p. 274 (1881); id. B. Japan. Emp. p. 47 (1890).

M. rostro nigro, mandibulâ flavâ: hypochondriis pallidè brunneis, minimè rufis, haud maculatis: rectricibus albo terminatis: gutture albo: pileo, facie laterali et gutture schistaceo-cinereis: genis anticis et mento albis.

M. PALLIDA is a species of Eastern Siberia which migrates through Corea and Japan to China and Formosa in winter. It is easily distinguished at all ages by the white tips to the tail-feathers.

This Ouzel breeds in the Ussuri country and in Manchuria. Godlewski states that he found it from the mouth of the Ussuri River, where Von Schrenk also met with it, to the coast of the Sea of Japan, and Janskowski observed the species on the island of Askold. During migration it is common enough, especially on the coasts above mentioned, arriving in the early part of May, and remaining to nest in small numbers in the thickest forests. It is very wary, but has an agreeable song, which it utters from the top of a tree or from some side branch. In the Seebohm Collection there is a good series of specimens procured by the brothers Dörries near the mouth of the Amur. The British Museum has also a pair of nestling birds procured in Southern Manchuria by Mr. James, which fact proves that the species breeds there; and in the basin of Lake Khanka, Przewalski observed its first appearance in the middle of April (17–24). In Corea it is found, according to Kalinowski, during the seasons of migration (*cf.* Taczanowski, Faun. Orn. Sibir. Orient. p. 311).

In Yezo, Whitely found the species rare and obtained only one specimen (Ibis, 1867, p. 199). Blakiston appears to have seen an example in the Hakodate Museum, and Dr. Stejneger records two specimens obtained by Mr. Henson at that place in November (Pr. U.S. Nat. Mus. xv. p. 316). The British Museum possesses a specimen from Hakodate received from the late Lieut. Bergman. Blakiston and Pryer state that it was not uncommon in the bamboo-thickets near Yokohama (Tr. A. S. Japan, 1882, p. 164), and the last-named naturalist sent several examples from this locality to Mr. Seebohm (B. Japan. Emp. p. 47). In Hondo, says Dr. Stejneger (*l. c.*), "this Ouzel occurs more frequently, as well as in Kiusiu, and in the Liukiu Islands, though it is by no means a common bird." In the latter group Mr. Ouston has procured specimens at Ishigaki in February (Bangs, Bull. Mus. C. Z. Harvard, xxxvi. p. 264). Holst met with the species at Kagoshima in the Twin Islands.

In China the Pale Ouzel seems to occur only as a migrant, and to be a more or less plentiful

bird of passage. Swinhoe records it as occurring from Pekin to Amoy and in Formosa (P. Z. S. 1871, p. 367). In the Lower Yangtze Valley it is a common winter visitant, according to Mr. Styan (Ibis, 1891, p. 332), arriving in November and leaving about the middle of April. Mr. La Touche found it wintering near Foochow, and extremely common during March and April (Styan, Ibis, 1887, p. 216). He has also seen it at Swatow in March (Ibis, 1892, p. 412). Mr. Rickett has procured specimens near Foochow and it has been sent from Kuatun in N.W. Fohkien to Mr. La Touche (Ibis, 1899, p. 177).

Swinhoe met with the present species in Formosa, and Mr. La Touche records it as a common species in winter in the northern part of the island, remaining as late as the 15th of April.

Mr. Styan says that in the Yangtze Valley it is a solitary bird in winter. It frequents gardens, orchards, and bamboo-clumps round the villages, much resembling the Blackbird (*M. merula*) in its habits, and also in its single alarm-note when disturbed.

The nest, according to Taczanowski, is made of dry stems of different kinds of grasses, especially those of a species of *Gallium*, mingled with a small number of dry leaves of trees and having a mixture of mud; the upper edge is composed of dry rootlets of *Vaccinium*, mixed with a certain number of pine-needles and moss. The interior is abundantly lined with very delicate grasses, with a small number of larger stems. The outside diameter is about 4·8 inches and the height about 3·5; the diameter of the interior 3·2 inches, with a depth of 1·6.

Eggs from the mouth of the Ussuri are similar to those of *M. obscura*, according to the same naturalist, with fine spotting. The ground-colour is pale greenish-blue, with spots of a brownish brick-red colour; they are somewhat pale, and very small on two of the specimens, irregular in number, and equally distributed over the whole surface, many being elongated into streaks and mixed with paler and equally small spots. On the third egg the superficial marks were much larger and less plentiful, the underlying ones large and less numerous: this egg resembled the more common variety of the above-named Ouzel. These eggs were more oblong and of a slenderer form than those of *M. obscura*. Dimensions: 1·15×0·8, 1·25×0·95, 1·3×0·8.

Adult male. General colour above olive-brown, the wing-coverts like the back, but the greater series grey at the extreme tips; bastard-wing feathers, primary-coverts, and quills dark sepia-brown, externally grey, fringed with white on the edges; the secondaries externally brown like the back; upper tail-coverts like the back, but the longer ones inclining to grey in the centre; tail-feathers dark sepia-brown, washed with grey externally, the three outer feathers with a spot of white at the tip of the inner web, increasing in extent towards the outermost, the white reaching the tip of the outer web also; crown of head to the nape, sides of face, and throat dark slaty-grey, more dusky on the lores and on the ear-coverts; a spot at the base of the cheeks and the chin white; the lower throat, fore-neck, and sides of body light brown with more or less of a pinkish tinge, the lower flanks darker brown; thighs ashy; centre of body from the chest to the under tail-coverts pure white, the latter with broad olive-brown margins; under wing-coverts and axillaries grey, with obsolete whitish margins and tips: "bill brown, with the lower mandible yellowish-white nearly to the tip; feet pale brownish; iris brown" (*Godlewski*). Total length 8·5 inches, culmen 0·8, wing 5·0, tail 3·5, tarsus 1·2.

Adult female. Differs from the male in wanting the grey crown, the head being of the same colour as the back; the ear-coverts brown, with dull whitish shaft-lines; the throat white, with dusky-brown streaks on the sides; the fore-neck and sides of body brown, without any of the pink shade apparent in the male. Total length 8·5 inches, wing 4·85.

Young. More ruddy-brown than the adult female, and spotted; feathers of the back with blackish margins and longitudinal shaft-streaks of ochreous-buff, widening slightly at the ends; the wing-coverts with triangular terminal spots of buff; the chest and sides of the body ochreous-buff, with terminal spots or bars of black on all the feathers.

The descriptions of the adult male and female are taken from specimens in the Seebohm Collection—the male from the Gulf of the Amur River, the female from Kamoze in the Tsu-shima Islands. The young is described from a specimen from South Manchuria, presented to the Museum by Mr. James. The specimens figured in the Plate are in the Seebohm Collection, and were collected at Yokohama and in Formosa. [R. B. S.]

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MERULA FEÆ, *Salvad.*

FEA'S OUZEL.

Turdus obscurus (pt.), Blyth, B. Burm. p. 99 (1875).
Turdus pallidus (nec Gm.), Hume & Davison, Str. F. vi. p. 253 (1878).
Merula pallida (nec Gm.), Oates, B. Burm. i. p. 2 (1883).
Merula feæ, Salvad. Ann. Mus. Civic. Genov. (2) v. p. 514 (1887); id. t. c. p. 610 (1888); Oates, Faun. Brit. Ind., Birds, ii. p. 135 (1890); Stuart Baker, Journ. Bomb. Soc. N. H. ix. p. 137 (1894); Rippon, Ibis, 1901, p. 544.
Turdus subpallidus, Hume, Str. F. xi. p. 132 (1888).

M. similis *M. obscuræ*, sed hypochondriis et pectore cinereis, pileo dorso concolore distinguenda.

Although bearing considerable resemblance to *M. obscura*, with which it has been generally confounded, *M. feæ* is easily recognized by the grey sides of the body, the paler ashy-grey of the throat and chest in the adult male, and by the uniform russet-brown colour of the upper surface, the crown being like the back. The species has been compared by some writers to *M. pallida*, but the absence of white spots at the end of the tail-feathers discounts this affinity.

The present species is probably not migratory, and will doubtless be found to be confined to the Indo-Burmese Provinces and Assam. In N. Cachar Mr. Stuart Baker states that he once noticed it, and Colonel Godwin-Austen met with a single example on the Hemeo Peak in the N. Cachar Hills. Examples procured by Mr. Cockburn at Shillong are in the Hume Collection. Colonel Wardlaw Ramsay obtained a specimen in Karen-nee, Mr. Davison shot a female bird on Mt. Muleyit in Tenasserim, and Colonel Rippon procured an adult male at Loi Maw in the Southern Shan States in April. The only specimen from Manipur in the Hume Collection is *M. obscura*, not *M. feæ*, and the same may be said of Colonel Godwin-Austen's birds from Cherra Poonjee and the Eastern Naga Hills.

Adult male. General colour above russet-brown; wing-coverts like the back; quills sepia-brown, externally like the back, the primaries with a slight indication of a hoary-grey margin; tail-feathers sepia-brown, externally edged with lighter brown like the back, the outer feathers fringed with whitish near the end of the inner web; crown of head slightly more russet than the back; the ear-coverts, cheeks, and sides of the neck of the same colour as the head; lores black, surmounted by a white superciliary line, slightly shaded with ashy; a spot below the eye and the fore part of the cheeks, as well as the base of the chin, whitish; rest of throat, fore-neck, breast, and sides of body slaty-grey, with a slight wash of rusty-brown on the throat and fore-neck; abdomen and under tail-coverts white, the latter with ashy-brown edges to the feathers; axillaries and under wing-coverts ashy-grey, like the sides of the body; quills dusky below, ashy along the inner webs: "bill black, yellow at gape and on the base of the lower mandible; feet brownish-yellow; iris brown" (*W. Davison*). Total length 9·5 inches, culmen 0·95, wing 5·1, tail 3·6, tarsus 1·2.

Adult female. Similar to the male, but with the throat whitish, streaked with russet-brown, a

shade of which overspreads the chest and even the grey on the sides of the body. Total length 8·4 inches, culmen 1·0, wing 4·9, tail 3·4, tarsus 1·25.

As with other Thrushes of this group, the young male after its first moult greatly resembles the adult female, but is distinguished by light tips to the greater coverts. A young female after its first moult, but showing light spots on the greater coverts, is very like the female of *M. obscura*, but the breast and sides of the body show a little grey, though this is entirely overshaded with ochreous-brown. The uniform russet-brown head and back serve to distinguish *M. fœæ* even in the young plumage.

The birds described are an adult male from Loi Maw, in the Shan States, and a female from Muleyit. The latter bird is figured, along with a male bird from Shillong. [R. B. S.]

MERULA ATRIGULARIS (*Temm.*).

BLACK-THROATED OUZEL.

Turdus atrogularis, Temm. Man. d'Orn. i. p. 169 (1820); Tacz. Faun. Orn. Sibir. Orient. p. 305 (1891).
Turdus bechsteini, Naum. Vög. Deutschl. ii. p. 310 (1829).
Cichloides bechsteini, Kaup, Natürl. Syst. p. 153 (1829).
Sylvia atrogularis, Savi, Orn. Tosc. iii. p. 203 (1831).
Merula atrogularis, Bp. Comp. List B. Eur. & N. Amer. p. 17 (1838); Seebohm, Cat. B. Brit. Mus. v. p. 269 (1881); id. Hist. Brit. B. i. p. 249 (1883); Oates, Faun. Brit. Ind., Birds, ii. p. 131 (1890).
Turdus varicollis, Hodgs. Icon. ined. in Brit. Mus., Passeres, pl. 148, nos. 198, 199, pl. 149, nos. 198, 199.
Merula leucogaster, Blyth, J. A. S. Beng. xvi. p. 149 (1847).
Planesticus atrogularis, Bp. Cat. Coll. Parzudaki, p. 5 (1854); Hume & Henders. Lahore to Yark. p. 192 (1873).
Cichloides atrigularis, Tytler, Ibis, 1869, p. 124; Hume, Str. F. i. p. 179 (1873).
Turdus mystacinus, Severtz. Turkest. Jevotn. pp. 64, 118, 119 (1873); Dresser, Ibis, 1875, p. 332.

M. rostro nigro, mandibulâ flavâ: gutture et præpectore nigris: corpore reliquo subtùs albo, hypochondriis cinerascentibus: caudâ saturatè brunneâ.

The Black-throated Ouzel breeds in Siberia and in the mountains of Central Asia; it winters in Northern India and the Himalayas, east to Assam and westwards to Baluchistan and Persia, having lately been found also at Yeshbum, in South Arabia. During its winter wanderings it has, on several occasions, been procured in Europe, and has twice been noticed in the British Islands.

Seebohm, in his 'History of British Birds,' gives the following notes:—"Its occurrence was first recorded by Mr. T. J. Monk, into whose possession the specimen came, in the 'Zoologist' for February 1869, p. 1560, thus: 'On Wednesday, 23rd of December, a fine example of the Black-throated Thrush was shot near Lewes. The bird, which proved on dissection to be a male, was in excellent condition, and, having been carefully handled, was in fine order for preservation, and in this respect has received ample justice from the hands of Mr. Swaysland of Brighton, where it may be seen.' Mr. G. D. Rowley also brought the circumstances before the Zoological Society of London, where the bird was exhibited."

Mr. Gould further described the specimen in the 'Ibis,' and afterwards figured it in his 'Birds of Great Britain.'

A second specimen of the Black-throated Ouzel was shot on the banks of the Tay, near Perth, in February 1879, and was recorded by the late Colonel Drummond-Hay in the 'Ibis' for 1889 (p. 579). Strange to say, this second occurrence has been overlooked by most recent writers on

British Birds, but Mr. Howard Saunders duly mentions it in his second edition of the 'Manual' (p. 9). The specimen is in the Museum at Perth, not "Edinburgh" as Mr. Harting has it (Handb. Brit. B. 1901, p. 347).

Seebohm gives a further note on *Merula atrigularis* in his 'History of British Birds' (i. p. 249):—"I met with it twice in the valley of the Yenesay on my return journey from the Arctic regions, between latitudes 60° and 63°, early in August; I found it a very noisy and active bird. I was too late for eggs; but the not fully fledged young, three of which I secured, were a source of great anxiety to their parents, whose alarm-notes resounded on the skirts of the forest on every side. They principally frequented the neighbourhood of the villages on the banks of the river, where the forest had been cut down for firewood, and clumps of small trees were scattered over the rough pastures where the cattle of the peasants are turned out to graze in summer. They showed a marked preference for the pines, and were very wary. The males kept out of gunshot; and I only obtained one adult, a female."

Mr. H. L. Popham, in his account of the birds observed on the Yenisei River (Ibis, 1898, p. 494), writes:—"The Black-throated Thrush appears to frequent the pine-forest only, and does not seem to be very gregarious in breeding-habits, for, although several pairs were nesting in the same locality, they were not by any means in colonies, like the Fieldfares. I obtained my first specimen at Yeniseisk, but did not meet with this Thrush again until we came to Inbatskaya, where I took five nests, each containing six eggs, which varied considerably. Two clutches have the markings of the Mistle-Thrush, but the ground-colour is a deeper blue; other clutches are very much of the type of the Blackbird, and in one of these latter a single egg has the markings of the 'Mistle-Thrush' type. The nests, composed of dry grass with a lining of mud and an inner lining of broad dry grass, were all placed in small fir-trees close to the stem (except one, which was on the top of a stump) at heights varying between three feet and six feet. In all cases both the parent birds flew uneasily from tree to tree round the nest, constantly uttering their alarm-note, 'chit, chit, chéet.' When singing, the male whistles a few notes at a time, somewhat like a Song-Thrush, with considerable variation, but does not repeat the same phrase two or three times over as the latter does. The Black-throated Thrush appears to be extremely local in the Valley of the Yenisei. The eggs measure from 1·08 in. to 1·15 in. long by from ·77 in. to ·84 in. broad."

Specimens from Tomsk are in the Milan Museum (Martorelli, Ornis, 1901, p. 264), and Seebohm believed that the species would be "found on the Ob River in similar latitudes to those it inhabited on the Yenisei, and in a similar climate in the pine-regions of the Himalayas and Eastern Turkestan. It winters in Western Turkestan, Baluchistan, and North India, occurring on migration as far eastwards as Lake Baikal, and in winter as far as Assam.

"Severtzow says that it breeds in Eastern Turkestan in the cultivated districts, gardens, grassy steppes, and salt plains, up to 4000 feet above the level of the sea; and there cannot be much doubt that it breeds also at a considerable elevation in the pine-regions of the lofty Himalayas."

With regard to the latter statement, I may remark that specimens from Native Sikhim were obtained by the late Mr. Mandelli in the fullest breeding-plumage, but no eggs have ever been known to be taken in these mountains, and the bulk of the individuals doubtless go further north to breed.

Dr. Otto Finsch, during his travels in Siberia and Central Asia, found the Black-throated Ouzel on the Arcad Mountains in May. Here it was nesting on the steppe, as the whole region was destitute of trees. It was met with on the 7th of June at the Marakal Lake, and also at Obdorsk, where Count Zeil obtained a young moulting bird on the 19th of August (Ibis, 1877, p. 50).

According to Taczanowski (Faun. Orn. Sibir. Orient. i. p. 305) its range extends to the southern Baikal region in Eastern Siberia, and it may nest to the north of that country. Dybowski and Godlewski have several times found it near the southern part of the lake during the spring migration, when it appears in the first days of April, either solitary or mixed with bands of *T. ruficollis*. In one isolated instance they noticed a specimen in the last days of March, but after the end of April all disappeared.

Dr. Oustalet (Nouv. Arch. Mus. (3) v. p. 150, 1893) states that five specimens were obtained during the expedition of M. Bonvalot and Prince Henry of Orleans, viz.: a male at Kuldja, in Chinese Turkestan, in September; two females in September at Tsanju, in the Tian-shan Mountains; a female at Aktarma; and another female in October at Arkan on one of the branches of the Tarim River.

In his account of the scientific results of Przewalski's journeys through Central Asia, Dr. Pleske says that specimens were obtained by this celebrated explorer at several places, and he gives the following summary of Przewalski's observations on the species:—"During the journey to Lob-nor, the Black-breasted Ouzel was found during the autumn migration in September 1876 in the valleys of the Kung and the Zanma, and in the middle of October on the Tian-shan, in the ravines of the Balantai-gol and Chaidu-gol. At the end of September a pair was seen on the Juldus. These Thrushes inhabited the wooded islands of the above-named rivers, and frequented the thick bushes of *Viburnum opulus* and *Cratægus* in flocks of from seven to twenty individuals. In the valleys of the Lower Tarim the species wintered in masses, and affected the districts in which the *Eleagnus* shrubs were plentiful, and on the berries of these they principally fed. In the spring, in the same districts, the Black-throated Ouzels were observed only once or twice, and were tired with their migration-flight, as the majority had already retired to more northern regions to nest. During the autumn migration the species was encountered in greater numbers towards the end of August and the beginning of September in the Talki Ravine, on the Ssairam-nor, and singly in the western and mountainous parts of Dsungaria.

"At the end of February 1879 Przewalski found four of these Thrushes near Saissansk, which were frozen up for some ten days during a severe and icy snowstorm. The poor birds, finding no shelter on the open steppe, took refuge on the window-shutter of the post-house and were frozen to death. In March the species became common on migration near Saissansk and on the Ulungur Lake, and also arrived in small parties on the Urungu River and in the southern Altai. At the beginning of August, Thrushes, apparently of this species, were observed on migration on the Tian-shan Mountains, also in Zaidam in the first half of September, and in Northern Thibet in the latter half of the same month.

"In the spring of 1885 the first individuals were observed in April on the Tschertsch-Darja and in the Tschertschian Oasis. On the Chotan-Darja the autumn migration began in the middle of September, and increased in volume at the end of the month and the early part of October. A certain number apparently passed the winter here."

It should be noted that Dr. Pleske, in the work above quoted, gives a minute account of hybrids between *M. ruficollis* and the present species; but in the large series of specimens procured by the brothers Grum-Grzimailo on the northern slopes of the Eastern Thian-shan, and from the districts of Turfan, Hami, Kansou, &c., he was much surprised not to find a single hybrid (Mél. Biol. xiii. p. 291).

In Central Asia, Severtzow states that the species breeds in Eastern Turkestan, where it also partially winters, but in Western Turkestan it appears in winter only. During the second Yarkand Mission many specimens were obtained. Dr. Stoliczka observes that the species was very numerous

near Khustágh on the 2nd of November, and it was again common near Yangi-hissár on the 1st of December. Colonel Biddulph records it from Yarkand on the 26th of November, and from Marálbáshi in January. He first noticed it at Sanju in November, and it was common about Káshgar all through the winter. He also obtained a specimen at Marálbáshi, but he never saw the species in Wakkán or on the Pámir, though he again found it when, in May, the expedition returned to the plains of Yarkand (Sharpe, Sc. Res. 2nd Yark. Miss., Aves, p. 93).

Dr. Scully, in his account of the birds of Eastern Turkestan (Stray Feath. iv. p. 140, 1876), says that "this species was first met with at Sulaghz Langar in September, and was a common bird in the plains, in the neighbourhood of Kashgar, Yarkand, &c., during the winter. It was usually seen about trees lining watercourses or growing near tanks. The bird disappeared entirely in spring, migrating in a north-easterly direction, towards the hills and the Lob district, where it was reported to breed." Dr. Henderson writes ('Lahore to Yarkand,' p. 192):—"This species, not observed on the upward journey, was very plentiful on the return march in October from Chāgra (alt. 15,000 feet) above the Pángong Lake, throughout Ladák and Kashmir, and by November it was widely spread over the plains of the Panjáb."

During the Afghan Boundary Delimitation Commission, Dr. Aitchison found this Ouzel very numerous in Badghis in winter, especially in the Pistachio forests, where it was very shy and difficult to get near (Sharpe, Tr. Linn. Soc. (2) Zool. v. pt. 3, p. 72, 1889).

Dr. W. T. Blanford writes in his 'Zoology of Eastern Persia' (ii. p. 158, 1876):—"I found the Black-throated Thrush common in Baluchistan in winter. It was especially so in the miserable apologies for gardens at Gwádar, one of the most desolate of inhabited spots on the earth's surface, where I can only explain the occurrence of this bird by the circumstance of its being unable to migrate further on account of the sea; and as confirming this view, I may mention that I saw several of these birds on some very cold days in January, when, as we afterwards learnt, all the higher plains in Persia were covered with snow. The birds were very tame, searching for food around the houses on the open sand-dunes. Elsewhere I only saw this bird in fairly wooded localities, such as the plains of Píshín and Mand. I, however, did not see it in the much more fertile and better-wooded plains of Soampúr and Narmashír, and I think it probable that before I reached those places, in the commencement of April, these birds had migrated northwards." Nor did either Major St. John or Dr. Blanford ever meet with *T. atrigularis* on the Persian plateau, though the former says that he has frequently seen it in winter in gardens about Ispahan (Ibis, 1889, p. 162).

Mr. Hume obtained two specimens at Gwadar on the Mekran coast on the 19th of February, 1872, and noticed that they were in nearly full breeding-plumage (Str. F. i. p. 179). Specimens have also been obtained near Bushire from January to March by Mr. A. J. V. Palmer (Sharpe, Ibis, 1886, p. 495), and Mr. Bury has recently met with the species at Yeshbum in South Arabia (Lorenz & Hellmayr, J. f. O. 1901, p. 240).

In the Seebohm Collection is a specimen from Samarcand, and Dr. Radde met with it in Transcaspia at Geomab on the 14th of March, and at Askabad on the 11th of February (*cf.* Dresser, Ibis, 1889, p. 85).

Colonel Swinhoe (Ibis, 1882, p. 105) says that this Ouzel has been procured by Dr. Duke from November to February near Quetta, and at Kelat in Northern Baluchistan in December. Sir. O. St. John found it very common in winter at Kandahar in some years, though scarcely seen in others (Ibis, 1889, p. 162).

The Black-throated Ouzel is found throughout the Himalayas in winter, and some of the specimens procured in spring are in such beautiful breeding-dress that it could easily be believed

that they were about to nest in these mountain-ranges. Even at Gilgit, however, the species is not known to breed, Dr. Scully stating that it is a common bird at an elevation of about 5000 feet, from the first week in October to the middle of May (Ibis, 1881, p. 439). Colonel Biddulph also says:—"Not uncommon in winter, but not a summer resident" (Ibis, 1881, p. 63). Mr. Hume writes (Stray Feath. i. p. 179, 1873):—"In the better cultivated portions of the Upper Sindh, especially in and about groves and gardens, this species was very common. We used continually to see it busy on the ground in the thick brush-wood, turning over leaves in a most systematic and business-like manner. I particularly noticed it on one occasion working a large patch of dead leaves backwards and forwards as a pointer would a field of turnips. Occasionally it was also seen in localities entirely devoid of trees, feeding in the irregular patches of a kind of mustard that is so generally grown throughout Sindh. About Hyderabad I again noticed it."

The series of specimens in the Hume Collection shows that *M. atrigularis* is found over a considerable portion of the Indian Peninsula in winter, especially the Punjab and South-west Provinces, while it occurs also throughout the Himalayas from Gilgit to Assam. It is found as far south as Dacca, and Blyth noticed it near Barrackpur, where, however, it was rarely seen (Ibis, 1866, p. 376).

Mr. Hume (Str. F. xi. p. 128, 1888) says that he has received specimens of this species from Shillong and the Khasia Hills, N.E. Cachar, and the Dibrugarh district, and he saw some birds near Karimgunj in Sylhet, as well as in the western hills of Manipur. In the winter of 1879 Mr. J. R. Cripps says that the species was very common near Dibrugarh: it was a very dry season, but in other winters a few were always to be seen about. Mr. Stuart Baker (J. Bomb. Nat. Hist. Soc. ix. p. 27) says that it is an extremely common bird in Northern Cachar, and may often be seen in considerable numbers feeding together in the rice *jhums*. Colonel Godwin-Austen has procured the species in the Lhota Naga Hills, the Khasias, and the Dafla Hills, as well as near Sadya.

It does not seem to have been found in the Burmese Provinces, but Colonel Bingham and Mr. H. N. Thompson saw a specimen close to their camp at Loi-San-Pa, in the Southern Shan Hills, at 6000 feet (J. A. S. Beng. 1900, p. 120).

The Black-throated Ouzel has occurred in different parts of Europe, and Professor Martorelli gives a long list of occurrences (Ornis, 1901, pp. 261–264) in Norway, Finland, Denmark, Germany, England, France, Italy, Austria, and Hungary.

In the 'Ibis' for 1901, Mr. Dresser describes and figures four eggs of the present species, obtained by Mr. H. L. Popham in the Yenesei Valley on the 13th of June, 1897. He believes these to be the first properly authenticated eggs of the Black-throated Thrush, as he does not seem to consider the eggs from the Altai Mountains, received from Mr. Tancré's collectors, to have been correctly identified. Seebohm, however, believed in their proper identification and considered that his was the first description ever published. About the authenticity of Mr. Popham's specimens no doubt can exist, as he took five nests, each containing six eggs, at Inbatskaya on the Yenesei River. Mr. Dresser states that the eggs "vary considerably, some almost exactly resembling the ordinary type of the Blackbird, whereas others are more like those of the Mistle-Thrush, but have the ground-colour of a deeper blue. In size they vary from 1·08 to 1·15 by 0·77 to 0·84 in."

Adult male. General colour above ashy grey, with slight indications of dusky centres to the feathers of the crown; wing-coverts like the back, with slightly paler ashy fringes to the greater series; bastard-wing, primary-coverts, and quills sepia-brown, with hoary grey edges to the latter; tail-feathers sepia-brown, washed with grey on the margins; lores, an indistinct eyebrow, sides of face, and entire throat and fore-neck black; ear-coverts ashy-brown posteriorly like the head; remainder of under surface of body from the fore-neck downwards dingy white, the sides of the body,

flanks, and thighs ashy-brown; under tail-coverts brown, tinged with orange and broadly edged with white, concealing the brown centres to the feathers; under wing-coverts and axillaries orange, the latter with ashy margins; quills dusky below, more ashy on the inner webs, which have a slight tinge of orange: "bill brown, lower mandible yellow almost to the tip; feet greyish brown; iris dark brown." Total length 9·5 inches, culmen 0·9, wing 5·65, tail 3·65, tarsus 1·25.

Adult female. Not very different from the male, but hardly so black on the throat and fore-neck, having a browner tinge on these parts. The wearing away of the edges to the under tail-coverts leaves these feathers more distinctly orange-brown. The sides of the body are streaked with dark brown. Total length 8·5 inches, culmen 0·9, wing 5·3, tail 3·5, tarsus 1·25.

Adult female in winter plumage. Lighter grey than in the breeding-plumage, the ear-coverts, cheeks, and sides of the neck like the back; throat and fore-neck black, but having all the feathers edged with hoary white, producing a mottled appearance; remainder of under surface pure white, the sides of the body more ashy, and streaked with dusky brown, these streaks being very distinct on the upper part and sides of the breast.

Young female. Duller ashy-brown than the adults, with whitish marginal tips to the greater wing-coverts and upper tail-coverts; the rest of the wing-coverts with terminal triangular spots of dull white; the back and scapulars with longitudinal whitish shaft-streaks; a distinct whitish eyebrow; ear-coverts dark brown; cheeks, throat, and under surface of body white, the throat, chest, and sides of the breast washed with orange-buff and spotted with black; a distinct malar line of dusky brown spots; a few of the abdominal feathers with brown linear margins.

The extensive hybridization which apparently takes place between the present species and other Thrushes is one of the most remarkable phenomena that I am acquainted with. The fact that the Siberian Thrushes are mixed up together during the winter migration is doubtless the cause that on their return to their breeding-quarters they pair with the allied forms. Of this there can be no doubt in the case of *M. atrigularis*, for there are evident hybrids between it and *M. ruficollis*, while there are some specimens with the flanks thickly spotted with black, which I believe to be a cross with *M. fuscata*. A large proportion of the specimens obtained in the N.W. Himalayas have some red in the tail, and the form called *Turdus hyemalis* by Dybowski occurs there. A male from Gilgit in Colonel Biddulph's collection appears at first sight to be a perfectly distinct species from *M. atrigularis*. It has an entirely red tail like *M. ruficollis* and has uniform greyish sides and a pure white breast and abdomen. Evidently this form has more of the strain of *M. ruficollis* in it than of *M. atrigularis*, but between this red-tailed bird and the typical dark-tailed *M. atrigularis* there is every kind of intermediate plumage.

The adult male described and figured in the present work is in the Seebohm Collection: it was obtained by Kibort at Krasnoyarsk on the 14th of April, 1878. The adult female described was procured by Seebohm in the Yenesei Valley on the 8th of August, 1877. The young bird described was sent by Kibort from Krasnoyarsk, and was shot on the 27th of July, 1878. [R. B. S.]

MERULA NAUMANNI (*Temm.*).

NAUMANN'S OUZEL.

Turdus naumanni, Temm. Man. d'Orn. i. p. 170 (1820).
Turdus fuscatus (nec Pall.), Radde, Reis. im Süd. v. Ost-Sibir. ii. Taf. vii. fig. *a* (1863: hybrid!).
Turdus ruficollis (nec Pall.), Radde, t. c. Taf. viii. fig. *a* (1863).
Turdus abrekianus, Dybowski, J. f. O. 1876, p. 193.
Merula naumanni, Seebohm, Cat. B. Brit. Mus. v. p. 264 (1881).

M. rostro fusco, mandibulâ flavâ: caudâ rufâ: hypochondriis rufo maculatis, pectore concoloribus.

Naumann's Thrush is a very distinct species, and it is a little difficult to understand why it should ever have been the subject of controversy. It can be distinguished at almost any age by the rufous sides of the body. This character distinguishes it from *M. ruficollis* and *M. atrigularis*, with neither of which does it appear to hybridize. The rufous spots of the back, more or less concealed, are another character of *M. naumanni*. The only sign of crossing with another species of Ouzel is an occasional individual which bears traces of hybridization with *M. fuscata*.

The present species, as Taczanowski remarks (Faun. Orn. Sibir. Orient. p. 299), has a very wide distribution in Eastern Siberia, and passes the winter in the south of Russian Manchuria, in Corea, and also in China; in Mongolia it is only a bird of passage in small numbers.

The following information is taken from Taczanowski's work on the Ornithology of Eastern Siberia:—"MM. Dybowski and Godlewski have found it everywhere on Lake Baikal, in Dauria, on the Amur, in the Ussuri country, and on the coast of the Sea of Japan, being everywhere common. Its ways are similar to those of *M. fuscata*, excepting that the migration *en masse* takes place some days later than in that species; it is, moreover, rather more shy, and its song, though similar, has always something slightly different in the utterance.

"In autumn it is seen on rare occasions in Dauria and on the southern part of Lake Baikal, where it arrives in the first days of October. None of the travellers who have visited the portion of Eastern Siberia enclosed between the southern Baikal region and the coast of the Japanese Sea have ever found this Thrush nesting in any part of this entire area, and it is therefore evident that it must go more to the north to breed in the great forests, and perhaps it may nest in small numbers in the wooded mountains of Dauria and the neighbourhood of Lake Baikal. On the coast of the Japanese Sea some of these birds pass the winter in the brush-wood along the streams or on the banks of the rivers, but they are also often met with on the islands near the coast, such as Poutiatin, Askold, and others.

"According to Przewalski, this Thrush arrives in spring in the Ussuri country in the second half of March, and continues passing till the middle of May; in autumn it repasses again in October, but on the coast of the Japanese Sea he met with solitary individuals up to the beginning of December. Janskowski and Kalinowski have observed it there throughout the winter."

In the Seebohm Collection there is a large series of specimens from the mouth of the Amur, procured by the brothers Dörries.

Although Seebohm did not find *M. naumanni* nesting in the Yenesei Valley, Mr. H. L. Popham was more fortunate, since, on his expedition of 1900 with Mr. Gerald R. Peek, the latter shot a female bird as she flew off a nest with six eggs (Ibis, 1901, p. 451). Mr. Popham has lent me this specimen for examination, and I find that it is an undoubted *M. naumanni*, but with several triangular spots of black on the sides of the breast. Mr. Dresser had also identified the skin as belonging to the present species.

In Corea, Kalinowski observed this Ouzel only on migration (Taczanowski, *l. c.*); and Mr. C. W. Campbell writes:—"A winter visitor; very numerous. In the vicinity of the Yalu River, in lat. 40° 30′ N., I noticed that the passage southwards commenced during the first week of October" (Ibis, 1892, p. 232). Seebohm gives the following account of the species in his 'Birds of the Japanese Empire' (p. 47):—"The Red-tailed Ouzel is a rare winter visitor to Japan. Dr. Henderson procured it at Hakodadi in October 1857 (Cassin, Proc. Acad. Philad. 1858, p. 194), and in the Pryer Collection there is one example obtained by Captain Blakiston at Hakodadi in March, and two examples from Yokohama. It has also occurred on the Loo-Choo Islands (Stejneger, Pr. U.S. Nat. Mus. 1886, p. 646)." Dr. Stejneger has since recorded the species from Tokyo (*op. cit.* xvi. p. 631). Holst met with Naumann's Ouzel on the 20th of January in the Tsu-shima or Twin Islands, where the bird is a winter visitor only (Seebohm, Ibis, 1892, p. 88).

To return to the mainland of Eastern Asia, we find that Przewalski states that *M. naumanni*, which winters in considerable numbers in Northern China, was only seen on migration near the town of Dolon-nor and in the valley of the Chuanche. Once also he saw the bird in the Kuku-nor district in October (*cf.* Pleske, Wiss. Result. Przew. Reis. ii. p. 6). In the British Museum are some specimens obtained by Mr. H. M. James at Chang-tsin-ling, in Southern Manchuria.

In China, Abbé David says that it was the species of Thrush which he most commonly met with, particularly in the north and west. Throughout this region, in the plains as well as on the mountains, it occurred in considerable flocks. At Pekin it was observed in the gardens from the autumn to the end of the spring among the pagodas and in the graveyards, feeding on berries as well as on worms and insects. Przewalski met with it in the valley of the Hoangho, in Kokonoor, and in the Ussuri country, but he has found, curiously enough, that it does not breed in Mongolia, nor even in the wooded mountains of Alashan.

Swinhoe gives the Chinese range of this species as from Shanghai to Pekin, and westwards to Szechuen (P. Z. S. 1871, p. 366). Specimens collected by him, and now in the British Museum, are from Shanghai, Ningpo, Sli-he, and Hoopih. At Shanghai the species has also been obtained by Capt. Ince, Mr. C. B. Rickett, and Mr. Robert Bergman (*cf.* Sharpe, Ann. & Mag. Nat. Hist. (4) vi. p. 157, 1870). The latter observer states that it was generally found in pairs in the villages. Swinhoe also records a straggler shot at Tamsuy, in Formosa, on the 19th of February; but the specimen is not in the Seebohm Collection, with the rest of Swinhoe's Chinese series.

In the 'Ibis' for 1884 (p. 262) Seebohm mentions some specimens of *M. naumanni* procured in winter by Mr. F. W. Styan in the Kiukiang district, about 450 miles up the Yangtse Kiang. On the Lower Yangtze Mr. Styan records the species as common in winter, arriving early in November and remaining till the middle of April. It was seldom found at any elevation over a few hundred feet, and was to a large extent gregarious, frequenting the larger copses and the outskirts of woods (Ibis, 1891, pp. 319, 332). In the Foochow district Mr. La Touche has found Naumann's Ouzel plentiful in spring, but rare in winter. He states that he has never noticed the bird at the latter season, but he believes that it may winter in the hills. It seems to avoid the Swatow plain altogether (Ibis, 1892, pp. 407, 412).

The species is not recorded from any part of the Burmese countries, nor from the Himalayas; but the late W. R. Davison obtained a young male bird, undoubtedly referable to this species, on Singapore Island on the 24th of June, a date which suggests that the individual in question had been injured in some way and was therefore unable to take part in the northward migration of the previous spring (Hume, Stray F. viii. p. 156).

Naumann's Thrush has occurred in many parts of Eastern and Central Europe (*cf.* Martorelli, Ornis, 1901, pp. 258–261).

Adult male. General colour above dark ashy-brown with a ruddy tinge, some of the feathers of the back and scapulars having more or less concealed cinnamon bases to the feathers; wing-coverts dark ashy-brown, the greater coverts narrowly fringed with ashy-fulvous, whitish at the ends; bastard-wing and primary-coverts dark sepia-brown, fringed with ashy, the margins more fulvous in tint on the inner secondaries, which are whitish towards the ends; upper tail-coverts pale cinnamon in the centre, broadly edged with ashy-brown; centre tail-feathers sepia-brown, the others cinnamon on the inner webs, this colour increasing in extent towards the outermost, so that the latter have only a little brown near the tips; all the feathers with a small white margin at the end; lores dusky, surmounted by a distinct eyebrow of pale cinnamon, like the sides of the face and cheeks, the ear-coverts being dark ashy-grey; sides of neck light cinnamon; throat cinnamon, with whitish edges to the feathers, separated from the cheeks by a line of triangular spots: fore-neck and breast, as well as the sides of the body and the under tail-coverts, light cinnamon, the feathers edged with hoary white, producing a mottled appearance; centre of breast and abdomen pure white; under wing-coverts and axillaries orange-rufous; quills dusky below, ashy on the inner webs, which have a slight orange tinge. Total length 9·5 inches, culmen 0·75, wing 5·1, tail 3·5, tarsus 1·3.

Adult female. Similar to the male, but a little darker brown above, and not showing the pale cinnamon bases to the feathers; the eyebrow and sides of face very pale cinnamon-buff; ear-coverts uniform dark brown; cheeks and throat whitish, tinged with cinnamon; a very broad malar stripe of triangular black spots, the throat and fore-neck also marked with the same black spots; breast and sides of body ashy-brown, with pale cinnamon bases to the feathers, which have blackish spots or streaks, the latter being very pronounced on the flanks; centre of breast and abdomen white; the under tail-coverts pale cinnamon, with white edges; under wing-coverts and axillaries orange. Total length 8·5 inches, culmen 0·8, wing 4·85, tail 3·1, tarsus 1·2.

The specimens described are in winter plumage, and the summer dress appears to be attained by the wearing off of the hoary-grey margins to the feathers. I can detect no evidence of a moult in any of the specimens killed in spring.

I have no evidence from the series in the British Museum that the old female ever gets an exactly similar plumage to the male, *i. e.*, a rufous throat and chest or a rufous eyebrow. All the specimens have a white or reddish-white throat, with a well-defined malar band of triangular black spots, the throat having also some small spots of the same character. The number of black spots on the chest and the sides of the breast and flanks varies considerably, and they seem to be more prevalent in young birds. Hybrids appear to be rare, but one female bird from Ningpo, and three birds from the mouth of the Amur, seem to me to be undoubted crosses between *M. naumanni* and *M. fuscata*.

The pair of birds described and figured are from the Gulf of the Amur in the Seebohm Collection; they were obtained by the Brothers Dörries. [R. B. S.]

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MERULA RUFICOLLIS (*Pall.*).

RED-THROATED OUZEL.

Turdus ruficollis, Pall. Reis. Russ. Reichs, iii. p. 694 (1776); Severtz. Turkest. Jevotn. p. 197 (1873); Tacz. Faun. Orn. Sibir. Orient. p. 300 (1891).
Red-necked Thrush, Lath. Gen. Syn. ii. p. 31 (1783),
Turdus erythrurus, Hodgs. Icon. ined. in Brit. Mus., Passeres, pl. 149, no. 200, pl. 149 *a*, no. 720; id. in Gray's Zool. Misc. p. 83 (1840).
Planesticus ruficollis, Bp. Cat. Parzudaki Coll. p. 5 (1856).
Turdus ruficollis (nec Pall.), Finsch, Ibis, 1877, p. 50.
Merula ruficollis, Seebohm, Cat. Birds Brit. Mus. v. p. 269 (1881); Oates, Faun. Brit. Ind., Birds, ii. p. 130 (1890).
Turdus naumanni (nec Temm.), Oust. Ann. Sci. Nat. (7) xii. p. 301 (1892).

M. rostro fusco, mandibulâ flavâ: caudâ rufâ: supercilio, facie laterali, gutture toto et præpectore rufis: corpore reliquo subtùs albo, hypochondriis pallidè cineraceis.

In the adult plumage this species is easily recognized by its rufous throat and chest and by the ashy-grey sides of the body; in this latter character it resembles *T. atrigularis*, with which it associates on migration and with which it frequently mates.

It is a common species in Eastern Siberia, where it nests on the mountains, in the forests of Cembra pines, according to Taczanowski (Faun. Orn. Sibir. Orient. p. 303). It winters in China, as well as in Central Asia and the Himalayas, passing through Mongolia on migration.

Taczanowski gives the following note by Mr. Godlewski:—"Very common during the spring passage on Lake Baikal and in Dauria, arriving later than *T. fuscatus* and *T. naumanni*: the first individuals appeared at the end of April, and the bulk of the migration did not take place till the first half of May. It consorts with the two Thrushes above named, and is of similar habits, but it leaves later than they do, and is not so noisy during its migrations. In the nesting-season we have observed them on the Khamar-daban, at the limit of the Cembra pine-forests, where the birds were very shy. Young birds were already flying in July. In August we had seen them travelling in troops to the foot of Mounko-sardik, not mixed with other species. During the autumn migration they are very rare, and we have seen single individuals at the commencement of October. Some remain all the winter in the southern part of Lake Baikal, where they inhabit the rushes in the marshes, and they are sometimes seen on the southern slopes of the mountains, where the snow does not lie, and here they feed on berries and seeds of different plants. In general they are scarce at this season, but in some winters they are more numerous than in others. Curiously enough, Godlewski says that all the specimens which he found in the Baikal district in winter were not typical birds, but had the throat and fore-neck mottled with dusky, but without any rufous. He further says that he never found the species on the shores of the Sea of Japan, nor did Janskowski or Kalinowski, who continued his explorations in

Eastern Siberia, and he thinks that the species must migrate to China by another route, by Mongolia and also by Chinese Manchuria."

Dr. Pleske gives the following note on *M. ruficollis* in his account of Przewalski's expeditions (Wiss. Result. Reis. Przew. Zool. ii. p. 7):—"To sum up the traveller's copious notes, *M. ruficollis* was not found nesting in any of the districts traversed by him. Its winter-quarters were determined as being in Alashan, but to all the other countries it was a spring and autumn visitor, with the occasional exceptions of the upper course of the Chuanche River and the province of Gan-su. In the latter country four specimens were procured by Berezowski (see Bianchi, 'Aves Exped. Potan. Gan-su,' p. 101, 1891). Przewalski's specimens were procured by him on the Upper Chuanche, the country of the Urots in the Southern Gobi deserts, in Kuku-nor, Lob-nor, Alashan, and Zaidam (*cf.* Pleske, *t. c.* p. 7). He met with it everywhere during his first journey through Mongolia, with the exception of Lake Halka and Northern Thibet, but always on migration (Taczanowski, *l. c.*)."

Von Middendorff, as quoted by Taczanowski, gives the following dates:—The first birds of this species were met with in the neighbourhood of Amingskaïa-Sloboda at the end of April. In the Stanowoi Mountains (60° N. lat.) large troops passed in the first half of May, and the migration was over before the end of the month, when they began building their nests in the chains on the western slope, while *T. fuscatus* had entirely disappeared. Middendorff further states that on approaching the crest of these Stanowoi Mountains no Thrushes were to be seen, and it was only on the southern shore of the Sea of Okhotsk that some were noticed between the 18th of September and the 22nd of October, in bands, but at such a distance that the species could not be distinguished. According to the same observer, the Yaconts give the name of Pine-Thrush to *M. ruficollis*, and Larch-Thrush to *M. fuscata* (Tacz. Faun. Orn. Sibir. Orient. pp. 303, 304). Kalinowski did not meet with this Thrush in Corea, nor has it been recorded from Japan.

Three specimens are recorded by Prof. Oustalet as having been obtained by M. Bonvalot and Prince Henry of Orleans—one on the Kansi-Daria on the 13th of October, 1889, at So and Tchoungo in Thibet, in April 1890, while another specimen was presented to the travellers by the missionaries at Ta-tsien-lou (Oust. N. Arch. Mus. (3) v. p. 143). Here Mr. A. E. Pratt also met with the species, having previously obtained it at Ichang on the Upper Yangtze.

Abbé David says that *M. ruficollis* passes along the mountain-regions of China in great numbers on migration. Although rare at Pekin, it abounds in Sichan, Mongolia, Shen-si, Moupin, and the other central provinces (David & Oust. Ois. Chine, p. 156). Dr. Oustalet (*l. c.*) mentions a specimen having been sent to the Paris Museum by Abbé Desgodins from Yer-ka-lo on the Upper Mekong River.

Though not recorded as yet from any part of Burma, it will doubtless be found occasionally on some of the frontier hills or on the Pegu plains, and a single example was shown by Davison to Capt. Kelham as having been obtained at Singapore (Ibis, 1881, p. 510). This was evidently not the specimen of *M. naumanni* shot on Singapore Island on the 24th of June, 1877, which is now in the Hume Collection, and is properly identified as that species.

Colonel Godwin-Austen has procured this Ouzel on many occasions in the Naga and Miri Hills, as well as at Cherra Poonji (J. A. S. B. xxxix. pt. 2, p. 102). Mr. Hume (Str. F. xi. p. 129, 1888) says that he never saw the bird on either the eastern or western hills of Manipur, but he shot several in the Manipur basin. He found it solitary and not in parties, like *M. atrigularis*, always in the level country, feeding in the open ground, and, in Sylhet and Cachar, always where heaps of manure had been thrown down in the fields, about which heaps it was busily foraging. He continues:—"I have this species from Sadiya and many other places in the Dibrugarh district,

and from Goalpara, and I shot it near Karimgunj in Sylhet, and again further up in the Cachar district." Mr. Stuart Baker (Journ. Bomb. N. H. Soc. ix. p. 137) states that he has not met with *M. ruficollis* in Northern Cachar. Mr. Cripps says that it is pretty common in the Dibrugarh district during the cold season.

M. ruficollis seems to occur throughout the Himalayas from Chamba to Assam (*cf.* Oates, Faun. Brit. Ind., Birds, ii. p. 130). In the former district Colonel Marshall shot two specimens in his garden after a snow-storm; but the species is more plentifully observed in the Eastern Himalayas, where Hodgson has procured it in Nepal, and Mandelli in Native Sikhim, British Sikhim, and on the borders of Thibet. It appears never to have been procured in the plains of India.

It is said by Severtzow to occur in Eastern Turkestan during migration and winters in the north-western districts, but is everywhere very rare (Turkest. Jevotn. pp. 65, 119). Dr. Finsch procured a specimen at the Sassyk-Ala-Kul Lake on the 9th of May (Verh. z.-b. Ges. Wien, 1879, p. 72).

The Red-throated Ouzel has occurred in Europe a few times, but some of the instances recorded do not seem to be properly authenticated. An immature bird was shot in Heligoland in November 1843, and it has been recorded on two occasions in Germany (*cf.* Martorelli, Ornis, 1901, p. 264).

Prof. Martorelli discusses the relationship of *M. ruficollis* as regards its interbreeding with *M. atrigularis*, and thinks that they may be two phases of one species. The subject is also treated of by Dr. Pleske and Professor Oustalet in the works above cited. My own opinion is that the two birds, as also *M. fuscata* and *M. naumanni*, are thoroughly distinct species, but that they occasionally interbreed, like *Corvus corone* and *C. cornix*.

Adult male. General colour above ashy-grey, the scapulars and wing-coverts like the back, the crown slightly mottled, with dusky centres to the feathers; the greater coverts and quills sepia-brown, with ashy margins to the feathers; centre tail-feathers brown, with ashy margins, the rest more or less cinnamon-rufous on the inner web, this colour increasing in extent towards the outermost feathers, which are entirely cinnamon, with the exception of a little brown colour near the ends; lores dusky-brown, surrounded by a superciliary streak of vinous-chestnut; sides of face, cheeks, throat, and fore-neck also vinous-chestnut, the ear-coverts dark ashy; a slightly indicated malar streak of black spots; remainder of under surface of body white, the sides of the body and thighs pale ashy-brown; under tail-coverts orange-cinnamon, concealed by broad white margins to the feathers; under wing-coverts and axillaries orange-rufous, with hoary-grey margins; quills dusky below, ashy on the inner webs, which are tinged with orange: "upper mandible and tip of lower mandible brown; rest of lower mandible, gape, and margins of upper mandible, except at tip, dull yellow; tarsi greyish-dusky; feet fleshy-brown; iris hazel" (*Hume*). Total length 9·5 inches, culmen 0·85, wing 5·4, tail 3·4, tarsus 1·25.

The adult female resembles the male and has a similar red throat, but it is probably only very old birds which gain the same plumage as the male; the sides of the body are more distinctly ashy-grey, and the breast spotted more or less distinctly with ashy. The black malar lines, which are sometimes lost in the old males, seem never to become quite obsolete in the old females, which have often black spots on the throat. Although the majority of female birds have white throats with black spots, yet there are so many specimens in the Museum which are entirely red-throated, that it is impossible to doubt that old females resemble the males.

A female in somewhat worn plumage from Lake Baikal, in the Seebohm Collection, is an adult bird killed by Dybowski in May. It has, however, a white throat and cheeks, as well as a whitish

eyebrow and region of the eye; the malar stripe is formed of black spots and is very well marked; fore-neck greyish, slightly tinged with rufous, with a few triangular black spots.

In the winter plumage the colours are all more obscured with light edgings to the feathers, those of the red throat being edged with hoary-grey. Young males have white throats like the females, and their first rufous throats are more of an orange-cinnamon, not nearly chestnut like the adults.

The adult male described is from Irkutsk and is in the Seebohm Collection, and the female is from Native Sikhim in the Hume Collection. The male figured in the Plate is a specimen (not very old) from Lake Baikal, collected by Dybowski; and the female is a young bird in winter plumage from Pekin, collected by the late Consul Swinhoe. Both are in the Seebohm Collection.

[R. B. S.]

MERULA EUNOMUS, *Temm.*

SIBERIAN DUSKY OUZEL.

Turdus fuscatus, Pall. Zoogr. Rosso-Asiat. i. p. 451, tab. xii. (1811, nec Vieill. 1807); David & Oust. Ois. Chine, p. 155 (1877); Tacz. Faune Orn. Sibir. Orient. i. p. 289 (1891).
Turdus eunomus, Temm. Pl. Col. ii. pl. 514 (1831); Stejneger, Pr. U.S. Nat. Mus. xv. p. 315 (1892); id. Res. Orn. Expl. Kamtsch. pp. 307, 325 (1885).
Turdus naumanni (nec Temm.), Gould, B. Eur. ii. pl. lxxix. (1837).
Cichloselys fuscatus, Bp. Cat. Parzud. p. 5 (1856).
Turdus dubius, Bechst.; Jaub. & Barth.-Lapomm. Rich. Orn. p. 213 (1859, pt.); Dresser, B. Eur. ii. p. 63, pl. vii. (1877); Finsch, Verh. z.-b. Ges. Wien, 1879, p. 71.
Planesticus fuscatus, Jerd. B. Ind. i. p. 530 (1862).
Turdus ruficollis (nec Pall.), Finsch, Ibis, 1877, p. 65 (teste Finsch, 1879).
Merula fuscata, Seebohm, Cat. Birds Brit. Mus. v. p. 262 (1881).

M. rostro et pedibus nigricanti-brunneis: alis præcipue rufis: caudâ saturatè brunneâ: gutture et supercilio pallidè cervinis: pectore et corporis lateribus nigro cordatim maculatis.

This species is chiefly recognizable by its rufous wings, and especially by the rufous axillaries and under wing-coverts. The tail is dark brown, thus distinguishing it from *M. naumanni*, with which it has sometimes been confounded, while the black spots on the chest and sides of the body are also characteristic.

Dr. Taczanowski has given the following history of the species in Siberia (Faun. Orn. Sibir. Orient. i. p. 293):—"Middendorff has found this Ouzel during the most severe winters on the Yenesei in 59° N. lat.: on the 10th of February he has seen many bands of these birds, consisting of from 30 to 40 individuals, to the south of Yeneseisk; and on the 21st of February he succeeded in killing several examples near the station of Savina, situated about 130 kilometres from Yeneseisk; the birds were driven by the cold, in troops of six or seven individuals, to seek shelter in the houses and under the roofs of the station-building."

None of the Russian travellers have found this Thrush at the same season of the year in the eastern districts of Siberia. Dybowski and Godlewski have observed the species on Lake Baikal, in Dauria, in the Ussuri country, and on the coasts of the Sea of Japan, and the last-named traveller writes:—"During the spring migration it is very common everywhere, arriving in the first half of May and keeping in troops often mixed with other Thrushes. Being less timorous than its congeners, it loves the open prairies, or those more or less covered with bushes, the edges of the forests, especially those situated on the southern slopes of the mountains. On fine days the birds perch in large numbers on the trees and bushes and sing, making a great hubbub consisting of a mixture of the different notes of all the species in the assemblage. We have not found this Ouzel breeding in any locality visited by us, and the eggs which were given to us were sent from Oussolje on the Angora. In autumn the species is very rare and appears in the early part of October, though we have killed a specimen on the 23rd of this month." Von Schrenk gives the following note:—

"*T. fuscatus* is the most common Thrush in the country of the Amour, where it is to be seen in large bands in autumn. The first I saw, probably on their way from the north, were met with on the 12th of September at the village of Belgou, near the mouth of the Gorin. In 1854 I observed some at the Nikolaïewsk Post between the 1st and the 26th of October, between which dates considerable flocks were making a great uproar on the larches at the edge of the forests growing along the course of the river and its little tributaries, the Karm, Litscha, and Patscha. At the end of this period solitary individuals were mostly observed, and the last were noticed on the 26th. M. Maximowicz has also killed a bird at the Marinsk Post on the 25th of October. On the 26th of September I obtained from M. Maack a specimen from the Boureia Mountains."

Przewalski observed the first arrivals in spring on Lake Khanka on the 24th of April in 1868, and on the 21st of April in 1869.

Nikolski gives the following note:—"If this species nests at all in Sakhalin, it is probably only in the northern parts of the island. During my stay in the central part I never met with the bird in summer, and Poljakow collected his specimens during the spring and autumn migrations, both on the east and west sides of the island. In the notes found after his death he states that he often met with the species in the first half of June in the valley of the river Sousoï: it made its appearance in the island at the end of the spring, and was seen in the autumn when the snow commenced. On the 15th of October [O. S.], when he obtained one specimen, the temperature was considerably below zero, the trees and bushes were all turned yellow, and some of them were bare of leaves. MM. Dobrotworski and Mitsoul indicate this Ouzel as being very common in the south of the island, but do not state whether it nests or is only a bird of passage."

In the Seebohm Collection is a fine series of this Ouzel obtained by the brothers Doerries at the mouth of the Amur River between October and April, as well as one specimen of Dybowski's from Sidemi in Ussuriland.

Middendorff did not meet with the present species on the Stanovoi Mountains, bnt he says that he shot some specimens on the Yenesei above 59° N. lat. in the coldest part of the winter (Reis. Sibir., Zool. ii. p. 172, 1851). On the latter river Seebohm says that it was the first Thrush to arrive at the Arctic Circle, small parties coming in on the 4th of June. He writes (Ibis, 1879, p. 3):—"They were to be found feeding on the steep banks where the sun had melted the snow. Their call-note reminded me of that of the Redwing. During the next week they were very plentiful, and I began anxiously to look out for their nests; but within a fortnight of their arrival they had all disappeared, and I saw no more of them until the 12th of July, during our voyage down the river. On this day we cast anchor for a few hours in lat. 69°, and I went on shore to explore for the first time a Siberian tundra. I climbed up the steep bank, and found myself in a wild desolate-looking country, full of lakes, swamps, and rivers, in some places a dead flat, in others undulating, and even hilly, brilliant with gay flowers, swarming with mosquitoes, and full of birds. In sheltered places dwarf willows and creeping-birches were growing, and (because we were only some fifty versts from the forests) here and there a few stunted larches. Winding through the tundra was the bed of a river, now nothing but a small deep valley, forming a chain of isolated lakes and pools. This river-bed bears the name of the dried-up Doo-din'-ka, and is about fifty versts to the north-west of the real river Doo-din'-ka. On some of the northern slopes large patches of snow were still lying. Most of the birds evidently had young. I found myself generally the centre of attraction of a little crowd of birds uttering their various alarm-notes as they flew round or waited on some shrub or plant with their bills full of mosquitoes, anxious to feed their young as soon as I was out of their way. As I was returning to the shore, and descending a steep sloping bank covered with patches

of dwarf birch and willow, overlooking a flat willow-swamp which evidently once formed a little delta at the mouth of the dried-up Doo-din′-ka, my attention was attracted by a pair of Dusky Thrushes loudly proclaiming the vicinity of their nest. I shot one of them, and, after a diligent search of half an hour, found the nest in the fork of a willow bush level with the ground. It was exactly like the nest of a Fieldfare, lined with dried grass, and contained, alas! five young birds about a week old.

"At noon we weighed anchor; but at midnight it was blowing such a stiff gale that we were afraid to round the 'broad nose' of Tol-stan-os′ in the 'Ibis'; so we cast anchor under the lee of the mud cliffs of the Yen-e-say′, and I again went on shore. In some places the cliffs were very steep, and were naked mud or clay. In others the slope was more gradual, and was covered with mud and alder bushes. Among these bushes I found the Dusky Thrush again breeding, but was only able to find one nest with five nearly fledged young. The nest was placed, as before, in the fork of a willow, level with the ground. This was the last time that I saw this species of Thrush."

Mr. H. L. Popham, during his second expedition to the Yenesei in 1895, obtained several nests of this Ouzel, which he found further north than the Redwing or the Fieldfare, occurring even beyond the limit of the forest-growth (Ibis, 1897, p. 92). On this third journey, he says that the Dusky Thrush was not seen at Yeneseisk, but was most numerous at Doodinka (lat. 69½° N.), where the forest comes to an end; and here he found five nests, one of them with seven eggs. The birds were very demonstrative when their nest was approached, but when once it was found they were very shy, and it became difficult to get anything but a long shot at them (Ibis, 1898, p. 493). As will be noticed above, Seebohm was only able to meet with nests containing young birds, but he was thus enabled to discover the nesting-home of the species, and Mr. Popham was apparently the first to bring home authentic eggs. Mr. Kibort, who collected for Mr. Seebohm at Krasnoyarsk, sent full-grown young birds, but no eggs from that locality.

On the river Ob, Dr. Finsch obtained a specimen at Bolschoi Ustram, on the 11th of September, 1878 (Verh. z.-b. Ges. Wien, 1879, p. 71).

Returning to the eastward range of the species, we find that it is only a rare straggler to Kamtschatka, according to Dr. Stejneger, who met with a small flock near Petropaulski on the 15th of May, 1883. He also procured a specimen on Bering Island between the sand-dunes opposite the village on the 3rd of June, 1883 (Rep. Orn. Expl. Comm. Isl. p. 307, 1885). In Korea, Kalinowski only noticed it on migration (*cf.* Tacz. P. Z. S. 1888, p. 463).

In his work on the 'Birds of the Japanese Empire,' Seebohm gives the following account of the species:—"The Dusky Ouzel is a winter visitor to Japan, arriving from the north in great numbers. A few remain to winter in the northern island, but most of them pass onwards, and winter in the more southerly islands. They are very common in winter near Tokio and Yokohama, whence there are nine examples in the Pryer Collection. It also occurs near Nagasaki (Blakiston and Pryer, Trans. As. Soc. Japan, 1882, p. 167), whence examples have been sent by Mr. Ringer to the Norwich Museum, and whence those erroneously recorded as *T. naumanni* in the report of the Siebold expedition were probably obtained (Temminck and Schlegel, 'Fauna Japonica,' Aves, p. 61). One of these examples was figured in 1831 under the name of *T. eunomus* (Temminck, Planches Coloriées, no. 514)."

Mr. P. A. Holst procured specimens on Tsu-shima, the Twin Islands, in January and April; it is a winter visitor to these islands (Seebohm, Ibis, 1892, p. 88).

It appears to migrate through Manchuria and Mongolia to China and India. Przewalski writes (in Rowley's 'Ornithological Miscellany,' ii. p. 196, 1877):—"We met with a flock of *Turdus*

fuscatus in the Schara-chada Mountains of S E. Mongolia during migration. At Lake Hanka they migrated in April and the beginning of May, usually in company with *T. naumanni*, like the latter not staying to breed, but going north for that purpose." On the 27th of September, 1884, he obtained a young specimen, apparently migrating, on the Naidshin-gol, in Southern Zaidam (Pleske, Wissensch. Result. Przew. Reis. i. p. 7, 1889).

Swinhoe gives the range of this species in China as from Pekin to Amoy, as well as Formosa, extending westwards to Szechuen (P. Z. S. 1871, p. 366). Abbé David records it as very common throughout China during half of the year, travelling in flocks like *M. naumanni*, and often mixed with the latter species (David & Oust. Ois. Chine, p. 155). Near Amoy, Swinhoe speaks of it as the commonest Thrush in winter (Ibis, 1860, p. 56). In the Lower Yangtse Valley Mr. F. W. Styan records the Dusky Thrush as a winter visitant, arriving in the first week in November and remaining till the middle of April, and he has met with it in Kiukiang as late as the 26th of the latter month. He states that it sometimes associates in flocks with *M. naumanni*, and prefers the fir-woods on the lower slopes and at the bases of the hills to the open country (Ibis, 1891, pp. 319, 333). Mr. J. D. La Touche says that it was extremely abundant at the end of February and throughout March at Foochow (Ibis, 1887, p. 217), but was rare as a winter visitant. One was shot in the Peling country in January, but he did not observe it at Swatow (Ibis, 1892, pp. 407, 413).

The species was obtained by Mr. Berezowski in Gan-su (Berez. & Bianchi, Exped. Gan-su, p. 102, 1891), and Capt. Wingate procured a specimen near Pu-an-ting, in West Kweichu, in January 1899 (Ogilvie-Grant, Ibis, 1900, p. 587). In Burma it has been met with by Colonel Wardlaw-Ramsay at Toungngoo, but it is rare in the Assamese Provinces. Mr. Stuart Baker says that he has only twice seen the species in Northern Cachar, two female birds having been obtained at a height of 3000 feet (J. Bomb. Soc. N. H. ix. p. 130). Specimens procured at Shillong and Dibrugarh by Mr. J. Cockburn are in the Hume Collection (Hume, Str. F. xi. p. 130, 1883). Colonel Godwin-Austen records the species from Harmutti in the Dafla Hills (J. A. S. Beng. xlv. p. 72, 1876), and also from the Japvo Peak of the Burrail range, at an elevation of nearly 11,000 feet (*op. cit.* xliii. p. 159). It also extends its range into the Eastern Himalayas, as Hodgson obtained a specimen in Nepal, but one named *M. fuscata* from the Bhotan Dooars, in the Hume Collection, is referred by Mr. Oates to *M. atrigularis* (Faun. Brit. Ind., Birds, ii. p. 129).

The Dusky Ouzel has not yet been detected in the British Isles, but it has occurred in many of the countries of Europe. Professor Martorelli, in his essay on the occurrence of the Thrushes of Siberia within European limits, gives a list of the occurrences of *Merula fuscata* in the European area (Ornis, 1901, pp. 255–258). It would seem that the species has occurred in the following countries of the Western Palæarctic Region:—South of France, September 1845, December 1856 (*Jaubert et Barthélemy-Lapommeraye*); Russia, near Moscow, August 30, 1865 (Tacz. Faune Orn. Sibir. Orient. p. 294); Bergamo, Lombardy, February 18, 1893 (Mus. Arrigoni degli Oddi). To these records may be added a male bird shot at Radda in Chianti (Tuscany) on the 25th of November, 1879, and now in the collection of Italian birds in the Florence Museum (Giglioli, Ibis, 1881, p. 197). Specimens from the south of France are in the Marseilles Museum (Eagle Clarke, Ibis, 1895, p. 184). There is also a young bird recorded by Gätke from Heligoland, caught in October 1880 (Vogelw. Helgol. p. 256, 1891; Seebohm, Ibis, 1892, p. 7). Dr. Fatio mentions a specimen in the Frey-Hérosé collection in the Museum of Aarau in Switzerland, which is believed to have been taken in that country (Faune Vertébr. Suisse, ii p. 350, 1899). It has occurred more than once in Germany, but apparently never in France (*cf.* Dresser, B. Eur. ii. p. 64).

Professor Collett has recorded the occurrence of the species in Norway (Orn. Jahrb. i. p. 37, 1890), and Baron Snouckaert van Schauberg mentions the capture of a specimen on the 20th of November, 1899, near Veenwouden, in the province of Friesland, in Holland (Orn. MB. viii. p. 18, 1900).

The habits of the Dusky Thrush appear to resemble those of *Turdus iliacus*, but Captain Blakiston compares them with those of the Mistle-Thrush of Europe, and says that the "note of recognition is a similar kind of squeak" (Ibis, 1862, p. 319). The nests found by Mr. H. L. Popham in the valley of the Yenesei were generally placed in small isolated trees, and rarely on the ground, though none were more than two feet above it. "Three clutches of my eggs," he observes, "have markings of the Fieldfare's type; three others much resemble the ordinary type of the Blackbird's, but one is rather browner in markings than the other two; in one of these latter a single egg is of the Fieldfare's type, but darker in ground-colour" (Ibis, 1898, p. 493). Some figures of the eggs taken by Mr. Popham have been figured by Mr. Dresser in the 'Ibis' for 1901 (p. 445, pl. ix. figs. 1–4).

Adult male in breeding-plumage. General colour above dusky brown, the feathers washed with vinous chestnut, which colour predominates over the lower back, rump, and upper tail-coverts; wing-coverts like the back; quills sepia-brown, the secondaries externally edged with rufous; tail blackish, the feathers slightly edged with rufous near the base; crown of head and ear-coverts blackish, with a few remains of lighter margins to the feathers; a broad eyebrow, cheeks, throat, and under surface of the body white; a narrow moustachial line of tiny triangular black spots; fore-neck and chest nearly uniform black, all the feathers of the sides of the body mottled with black centres; under tail-coverts centred with vinous-brown; axillaries and under wing-coverts vinous-chestnut, with hoary-white margins; quills dusky below, pale chestnut for two-thirds of the inner web. Total length 8 inches, culmen 0·85, wing 5·0, tail 2·9, tarsus 1·25.

Adult female in breeding-plumage. Differs from the male in having less black on the fore-neck and chest, these parts having black centres to the feathers like the flanks. Total length 7·8 inches, wing 5·0, tail 3·2, tarsus 1·25. "Bill horny black, except the basal three-fourths of upper tomium, and lower mandible, except tip, pale orange; feet pale greyish-brown; iris dark brown" (*L. Stejneger*).

Adult in winter plumage. Similar to the summer plumage, but obscured by dusky ashy-brown edges to the feathers of the upper parts, which are consequently not so rufous; the greater wing-coverts and quills broadly edged with rufous, the primaries bordered with white, especially near the extreme base, forming a small alar speculum; eyebrow, sides of face, cheeks, and throat pale fawn-colour, with a moustachial streak of black and a few scattered black spots; remainder of under surface white, with more or less distinct black centres to the feathers of the fore-neck, chest, and sides of body.

Young after first moult. Similar to the winter plumage of the adults, but with a good deal of grey on the chest, which has numerous small triangular black spots, which are similarly distributed on the sides of the breast; the throat buff, distinctly varied with triangular spots of black.

Nestling. Head blackish, as also the ear-coverts; the back ochreous-buff, mottled with broad blackish edges to the feathers; the wing-coverts longitudinally centred and the quills broadly edged with rufous-buff; under surface of body white, the chest washed with ochre, all the under surface spotted with black ends to the feathers.

The male and female described were collected by Seebohm in the valley of the Yenesei, in lat. 66½°, on the 10th of June, 1877. The male is figured, with a nestling bird obtained in the same

valley, in lat. 69°, on the 14th of July. The winter plumage of the adult and the young bird after its first moult are described from specimens obtained at the mouth of the Amur by the brothers Doerries. An adult female in winter plumage, from Krasnoyarsk, September 28th, 1879, is figured, and with it a young male in first winter plumage from Shanghai, procured by Consul Swinhoe on the 11th of February, 1870. [R. B. S.]

Genus MIMOCICHLA.

Mimocichla, Sclater, P. Z. S. 1859, p. 336 ; Seebohm, Cat. Birds Brit. Mus. v. p. 280 (1881).
Mimokitta, Bryant, Pr. Bost. Soc. N. H. ix. p. 371 (1865).
Mimocitta, Newton, Ibis, 1866, p. 121.

The rounded white-tipped tail at once distinguishes this Antillean genus from the true Thrushes. In the 'Catalogue of Birds' (*l. c.*), Seebohm made the following remarks on its position ; only three species were known to him in 1881 :—"The genus *Mimocichla* is a very small one, nearly allied to *Turdus* and *Merula*, but differing from them in having a much more rounded tail, with the three or four outside feathers on each side white at the tips for a considerable distance on the inside web. They are also remarkable for the broad pale borders to the secondaries and wing-coverts. The bill is slightly more slender than usual among the Thrushes, and the rictal bristles are small. The bastard-primary is small, and the second primary considerably longer than the secondaries. The legs are pale in colour, and the tarsus unscutellated."

Notwithstanding the significance of the generic name, which, by its proposer, was doubtless meant to suggest a Thrush-like bird, and not a Mocking-bird (*Mimus*), the evidence of all observers tends to show that the species of *Mimocichla* are true Thrushes in their habits.

Key to the Species.

a. Throat black.
  a'. Belly chestnut . . . . . *rubripes.* / *coryi.*
  b'. Belly slaty-grey, like the back.
    a''. Under tail-coverts slaty-grey . . . . . *plumbea.*
    b''. Under tail-coverts white . . . . . *schistacea.*
b. Throat ashy-grey like the breast . . . . . *ravida.*
c. Throat white, streaked with rows of triangular black spots.
  c'. White of abdomen not extending to lower breast; no buff tinge on abdomen . . . . . *ardesiaca.*
  d'. White of abdomen continued to the lower breast; a buff tinge on the abdomen; white tips to the tail-feathers larger . . . . . *albiventris.*

The synonymy of this genus in the 'Catalogue of Birds' is much confused, and I can hardly believe that it was written by Mr. Seebohm himself. [R. B. S.]

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MIMOCICHLA RUBRIPES (*Temm.*).

CUBAN GREY THRUSH.

Turdus rubripes, Temm. Pl. Col. ii. pl. 409 (1826).
Mimus rubripes, Bp. Consp. i. p. 276 (1850).
Galeoscoptes rubripes, Cab. Mus. Hein. Th. i. p. 82 (1850); Sclater, P. Z. S. 1859, p. 336.
Mimocichla rubripes, Sclater, Cat. Amer. B. p. 6 (1862); Baird, Rev. Amer. B. p. 38 (1864); Gundl. J. f. O. 1872, p. 196; Seebohm, Cat. Birds Brit. Mus. v. p. 283; Cory, List B. West Ind. i. p. 5 (1885); id. B. W. Ind. p. 19 (1889); id. Cat. West-Indian B. p. 122 (1892).

M. gutture nigro: abdomine dilutè castaneo vel cinnamomeo.

This species was, until recently, supposed to be confined to the island of Cuba, but Professor Ridgway recorded in 1887 the discovery of the bird on Swan Island, where Mr. C. H. Townsend procured a series of specimens. These Dr. Ridgway could not separate from Cuban examples, "after the most careful examination" (Proc. U.S. Nat. Mus. x. p. 575, 1887). Dr. Bryant has mentioned the present species as having occurred on the Bahamas, but Mr. Cory doubts the correctness of this record.

Dr. Gundlach (J. f. O. 1872, p. 406) says that in Cuba this Thrush is known as the "Zorzal real" or the "Zorzal de patas coloradas." It inhabits the woods and tree-gardens and the coffee and "Pisang" fields, its food consisting of fruits, berries, small seeds, and insects. Its flesh is much appreciated. It runs on the ground with its tail uplifted, and scratches for its food among the fallen leaves. When sitting on a branch it continues to move its tail and wings, and its motions are graceful. In the nesting-season it sings a kind of song, which consists of disjointed but diversified notes; then it generally sits on a bare branch or on a naked bough at a good height. Besides its call-note, it has a peculiar cry which it utters when excited, or when startled or quarrelsome, and it likewise emits some sweet and soft-sounding notes when it calls to the female. The flight is rapid, but not sustained for long, as the wings are not very powerful. The breeding-season commences in April and continues till June. The nest is made of grass and dry leaves, the interior being lined with horsehair and other hair, wool from plants, and feathers, &c. It is variously situated, and found at different heights, either between deeply forked branches in creepers, in the depressions of horizontal boughs or in holes in the latter, or in the stems of palms when they are open at the side.

The eggs are described by Dr. Gundlach (J. f. O. 1857, p. 147):—"Of a light greenish colour, like pale examples of the eggs of *Turdus lividus*, and very thickly spotted, in the first instance with reddish and violet-grey, then clearer and darker reddish-brown, forming a zone near the base. The spots are of large and small size, mottled and crowded together, so as to leave the ground-colour somewhat clear near the large end of the egg. In the large series of my Thrushes' eggs, I have none resembling these, as those of *T. merula*, *T. torquatus*, and *T. pilaris* have a much darker ground-colour and not such pretty or clear-coloured spots. The texture of the shell is intermediate between that of *T. lividus* and *T. rufiventris* and has, moreover, fine but deep pores."

Adult male. General colour above dark slaty-grey, slightly paler on the lower back, rump, and upper tail-coverts, the head slightly streaked with blackish centres to the feathers; lesser wing-coverts like the back; the median and greater coverts, as well as the primary-coverts and quills, black, externally somewhat broadly edged with light slaty-grey, lending a grey aspect to the wing; tail-feathers black, slightly tipped with ashy, the four outer feathers with a broad white tip, increasing in extent towards the outermost; lores and feathers below the eye black, extending on to the fore part of the ear-coverts, which are otherwise slaty-grey like the sides of the neck; chin and cheeks white; throat black, mottled and streaked with a few white edges or bases to the feathers; fore-neck, breast, and sides of body slaty-grey, with a few black streaks on the fore-neck; abdomen and thighs and sides of vent pale chestnut or cinnamon, the thighs with slate-coloured bases; under tail-coverts white; under wing-coverts dark slaty-grey: bill black; feet and eyelids red. Total length 9·7 inches, culmen 1·0, wing 4·8, tail 4·15, tarsus 1·5.

In the ten specimens procured by Mr. Townsend on Swan Island, Mr. Ridgway found some differences in the colour of the bill, which he describes as follows:—"There is a curious variation in the colour of the bill, which in some is deep black, while in others it is deep orange or orange-red, the upper mandible tinged with brownish-dusky. The extremes are found in two males."

Dr. Gundlach (J. f. O. 1872, p. 406) describes the young of *M. rubripes* as being of a duller colour than the adults, with dusky tips to the feathers of the crown, while the breast-feathers have dusky margins with pale buff centres. The wing-coverts have an ochre-coloured tip, and the tail-feathers are washed with rust-colour in the centre, with faintly indicated dusky cross-bars.

The specimen described is a male bird in the Salvin-Godman Collection, received from Mr. Lawrence. The bird figured is from San Cristobal, collected by Dr. Gaumer, and now in the Seebohm Collection. [R. B. S.]

MIMOCICHLA CORYI, *Sharpe*.

CORY'S GREY THRUSH.

Mimocichla rubripes (nec Temm.), Cory, Auk, 1889, p. 31.

Similis *M. rubripedi* sed pallidior, rostro pallidiore flavicanti-brunneo nec nigro, et plaga abdominali saturatè castanea magis restricta distinguenda. Long. tot. 10·0 poll., culm. 1·1, alæ 5·1, caudæ 4·65, tarsi 1·45.

The Grey Thrush from the island of Cayman Brac seems to be distinct from *M. rubripes* of Cuba, with which Mr. Cory has identified it. Mr. F. D. Godman received three adults and one young bird from Mr. Cory in exchange; and I find on examination that all these birds have pale bills, while the patch on the abdomen is of a deeper chestnut, and not so cinnamon as in *M. rubripes* of Cuba. So many of the species from Cayman Brac have proved to be distinct from their Cuban allies, that it is not surprising that the *Mimocichla* should also turn out to be different.

A young bird is rather duller grey than the adults, with triangular spots of orange at the end of the wing-coverts; the black throat-patch of the adults is represented by a mass of triangular black spots, extending to the base of the chin, and there is only a small white cheek-stripe; the grey feathers of the underparts have black bars at the ends with a subterminal wash of pale cinnamon. The bill is pale horn-brown, with a conspicuous yellow base to the mandible.

The specimens described are in the Salvin-Godman Collection. They were collected by Mr. C. J. Maynard, and were sent in exchange by Mr. C. B. Cory to Mr. Godman. [R. B. S.]

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MIMOCICHLA PLUMBEA (*Linn.*).

BAHAMA GREY THRUSH.

Red-Leg'd Thrush, Catesby, Nat. Hist. Carol. i. p. 30, pl. 30 (1731).
Le Merle cendré d'Amérique, Briss. Orn. ii. p. 288 (1760).
Turdus plumbeus, Linn. Syst. Nat. i. p. 294 (1866); Bryant, Pr. Bost. Soc. Nat. Hist. xi. p. 68 (1866).
Red-legged Thrush, Lath. Gen. Syn. ii. pt. i. p. 33 (1783).
Galeoscoptes plumbeus, Cab. Mus. Hein. Th. i. p. 82 (1850).
Mimus plumbeus, Gray, Gen. B. i. p. 221 (1844).
Mimocichla plumbea, Baird, Review Amer. B. p. 36 (1864); Cory, B. Bahama Isl. i. p. 45, pl. 11 (1880); id. B. West Ind. p. 20 (1889).
Mimocichla bryanti, Seebohm, Cat. Birds Brit. Mus. v. p. 280 (1881).
Mimocichla rubripes (nec Temm.), Bonhote, Avicult. Mag. viii. p. 282 (1902).

M. gutture nigro, mento et genis anticis albis. Similis *M. schistaceæ*, sed subcaudalibus schistaceis, pectore concoloribus distinguenda.

The present species is confined to the Bahamas, where it inhabits the following islands, according to Mr. Cory:—Great Bahama, Abaco, Eleuthera, New Providence, and Andros (*cf.* Cat. West Ind. B. p. 80). Mr. J. L. Bonhote, who obtained some specimens of this *Mimocichla* near Nassau, writes of the species (Avicult. Mag. 1902, p. 282):—"Although tolerably common, this bird is a great skulker, and thus frequently escapes observation; it generally moves about on the ground or in the lower branches of thick 'coppet,' and, when disturbed, it renders itself, by remaining motionless, quite the reverse of conspicuous. The male sings, as a rule, at a moderate elevation in somewhat similar situations to those chosen by the Bahama Mocking Bird, but if he fancies himself observed, he will change his post so frequently that one is often led a long way before a glimpse of him can be obtained."

Mr. Bonhote has given me the measurements of six specimens, taken by himself from birds procured in the Bahamas, as follows:—*Wing*: ♂ 4·75; ♀ 4·3–4·5. *Tail*: ♂ 5·0; ♀ 4·6–4·75. *Culmen*: ♂ 0·85–0·9; ♀ 0·95. *Tarsus*: ♂ 1·25–1·48; ♀ 1·48–1·5 inches.

When Dr. Bryant visited the Bahamas, he found the species very difficult to observe, and he did not succeed in procuring a specimen, but he was told by the inhabitants that after the sapadillas were ripe, the birds came into the settlements and could be easily killed.

Mr. Cory's note is as follows:—"For years the Plumbeous Thrush has been represented only by a very few specimens in some of the large Museum collections, and was considered so rare that I was very much surprised, upon visiting the Bahamas, to find it abundant on some of the islands. At New Providence and Abaco it was especially common, and I was enabled to collect a fine series of specimens. It generally remains concealed in the thickets, and, perhaps for this reason, is seldom seen, although it is well known to the inhabitants by the name of the 'Blue Thrasher.' Its song is

very pretty, at times resembling the notes of our Common Robin (*Turdus migratorius*). The stomachs of several specimens contained the remains of berries and insects."

Adult male. General colour above uniform dark slaty-grey, paler on the lower back, rump, and upper tail-coverts, and especially on the wings, the coverts and quills being black, with very broad edges of pearly slate-colour, of a paler tint than the back; tail-feathers black, with a white spot at the ends of the inner web of all but the centre feathers, increasing in size towards the outermost feather, the white spot accompanied by a coterminous amount of grey along the outer web; head slaty-grey like the ear-coverts and sides of face and cheeks; lores and feathers below the eye black; fore part of cheeks white, as also the chin; throat black; remainder of under surface of body slaty-grey from the lower throat downwards, with a small patch of white-tipped plumes on each side of the vent; under tail-coverts and under wing-coverts slaty-grey: bill black; "legs and ring round the eye crimson" (*J. L. Bonhote*). Total length 10 inches, culmen 1·0, wing 5·0, tail 5·55, tarsus 1·45.

Adult female. Similar to the male, but a little smaller. Total length 9·5 inches, wing 4·65.

The specimen figured in the Plate is a male from Nassau collected by Mr. C. B. Cory, and now in the Seebohm Collection. This bird, and a female obtained by the same gentleman, have been described by me. [R. B. S.]

MIMOCICHLA SCHISTACEA, *Baird.*

SLATY-GREY THRUSH.

Mimocichla schistacea, Baird, Review Amer. B. p. 37 (1864); Gundlach, J. f. O. 1872, p. 407; Cory, List B. West Ind. p. 5 (1885); id. B. West Indies, p. 19 (1889); id. Cat. West-Indian B. p. 122 (1892).
Mimocichla rubripes, pt., Seebohm, Cat. Birds Brit. Mus. v. p. 283 (1881).

M. schistacea, alis extus paullò clarioribus: loris et gutture toto nigris: mento et genis anticis albis, corpore reliquo subtus cinerascenti-griseo: abdomine imo et subcaudalibus albis.

This species was united to *M. rubripes* by Mr. Seebohm in the 'Catalogue of Birds,' and it is only quite recently that it has been discovered to be distinct, though Dr. Gundlach, the celebrated Cuban ornithologist, averred as long ago as 1872 that *M. schistacea* was not identical with *M. rubripes*, but was confined to the eastern side of the island. Count von Berlepsch has kindly presented to the Museum a specimen of *M. schistacea*, which he very rightly calls a "*species opt.*" It is in fact one of the grey-bellied species, and is allied to *M. plumbea* of the Bahamas, but has a longer white moustachial stripe and white under tail-coverts.

Dr. Gundlach has given the following note in 1872 (*l. c.*) :—" The common name *M. rubripes* is applied to this species also. At the time of writing there are probably only three specimens known in Museums, two of which are in the Smithsonian Institution at Washington and the third in that of the Philadelphia Academy. The two first-mentioned birds were obtained by my friend and comrade, the well-known authority on Cuban Botany, Mr. Charles Wright, in the province of Guantanamo." Dr. Gundlach says that he neglected to collect specimens during his stay in Eastern Cuba, as he mistook the birds for *M. rubripes*, and did not require any specimens of the latter species. The outbreak of the revolution in 1872 made it too dangerous for travellers to approach the Eastern Provinces, and he was therefore unable to determine whether *M. schistacea* was confined to Eastern Cuba only. He believed, however, that it was found in the neighbourhood of Santiago de Cuba, near Guantanamo and the rest of the east side of the island. On the 28th of February he procured a nest and three eggs close to the above-mentioned town. They differed very much from those of *M. rubripes* from the western side of the island. The female he saw on the nest he took to be *M. rubripes*, but it was doubtless *M. schistacea*. The eggs were smaller and the spots very minute, and not so large as in those of *M. rubripes*.

M. schistacea may be briefly described as being very similar to *M. plumbea*, but of a darker slate-grey colour above, with the broad slate-coloured margins to the wing-coverts darker and scarcely different in shade from the back; in *M. plumbea* they are much paler grey than the back. The underparts are of about the same slaty-grey colour in both species, but the lower abdomen is white, and there is also a tuft of white plumes on each side of the lower flanks. These are slightly indicated in *M. plumbea*, but in a less degree than in *M. schistacea*, which is, moreover, easily distinguished by the white under tail-coverts, which have black bases. The bill is of a reddish

horn-colour, whereas in *M. plumbea* it seems to be always black, and in the last-named bird there is only a white spot on the base of the cheeks, whereas in *M. schistacea* the cheeks are white as far as the level of the centre of the ear-coverts, forming a broad moustache. The chin is white and the throat black in both species. The specimen in the Museum is a female, and measures:—Total length 10·5 inches, culmen 1·05, wing 4·8, tail 4·0, tarsus 1·45. [R. B. S.]

MIMOCICHLA RAVIDA, *Cory*.

GRAND CAYMAN GREY THRUSH.

Mimocichla ravida, Cory, Auk, p. 499 (1886); id. B. West Indies, p. 285 (1889); id. Cat. West-Indian Birds, p. 157 (1892).

M. gutture cinereo, pectori concolore.

I HAVE never seen an example of this Grey Thrush, which has been described by Mr. Cory from the island of Grand Cayman. It would appear to be allied to *M. ardesiaca* and to have the bill orange-red; the throat, however, is described as being grey like the breast.

The following is Mr. Cory's original description:—"Bill large; general plumage dull ashy or brownish plumbeous; no stripes on the throat, which is of the same colour as the breast; a patch of dull white on the vent and under tail-coverts; three outer tail-feathers tipped with white on the inner web: bill, bare space round the eye, and legs orange-red; iris dull red. Length 9·50 inches, wing 5·25, tail 4·40, tarsus 1·50, bill 0·90." [R. B. S.]

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MIMOCICHLA ARDESIACA, *Vieill.*

SAN DOMINGO GREY THRUSH.

Merle cendré d'Amérique, D'Aubent. Pl. Enl. iv. pl. 560. fig. 1.
Le Tilly ou La Grive cendrée d'Amérique, Montb. Hist. Nat. Ois. iii. p. 314 (1775).
Turdus plumbeus (nec Linn.), Vieill. Ois. Amér. Sept. ii. p. 2, pl. 58 (1807).
Turdus ardosiaceus, Vieill. Enc. Méth. p. 646 (1823); Bryant, Pr. Bost. Soc. Nat. Hist. xi. p. 92 (1866).
Mimus plumbeus (nec Linn.), Bp. Consp. i. p. 276 (1850).
Galeoscoptes plumbeus (nec Linn.), Sallé, P. Z. S. 1857, p. 231; Scl. P. Z. S. 1859, p. 337.
Mimocichla ardosiaca, Baird, Review Amer. B. p. 39 (1864); Gundl. J. f. O. 1878, p. 165.
Turdus ardosiaceus, var. *portoricensis*, Bryant, Pr. Bost. Soc. Nat. Hist. xi. p. 93 (1866).
Mimocichla ardesiaca, Scl. & Salv. Nomencl. Av. Neotr. p. 2 (1873); Seebohm, Cat. B. Brit. Mus. vi. p. 282 (1881); Cory, Birds Haiti & San Domingo, p. 18 (1885); id. B. West Ind. p. 21 (1889); id. Cat. West-Indian B. p. 122 (1892).

The present species inhabits Haiti and San Domingo, as well as the neighbouring island of Porto Rico. Dr. Bryant was inclined to consider the species from the last-named island distinct, but Mr. Cory does not recognize two forms, nor can I see any specific differences.

Mr. Cory has given the following note on this Thrush in his work on the 'Birds of Haiti and San Domingo':—"The present Thrush is found wherever there are large trees in all parts of the island. It was very abundant in the vicinity of Fort Jacques, at an altitude of 2500 feet above the sea-level. On the coast it prefers the thickest and most secluded localities; but high up in the mountains we often observed it flying about in the open. Its note somewhat resembles that of the Robin (*Turdus migratorius*). The breeding-season is in December and January. A nest taken near Puerto Plata, Jan. 9, contained two eggs, in which incubation had already commenced. The nest was built about three feet from the ground, in the crotch of a small tree, surrounded by a dense growth of underbush. The eggs are dull bluish white, heavily blotched with brown, and measure $1\frac{10}{100} \times \frac{85}{100}$. The food consists mainly of insects and berries."

Adult male. Above light slaty-grey, with more or less concealed black shaft-lines to the feathers, broader and forming distinct black centres to the plumes of the crown; wing-coverts and quills black, with broad outer margins of slaty-grey, a little paler than the back; tail-feathers black, all but the centre ones with a white tip, which extends over both webs and increases in size towards the outermost; sides of face, cheeks, and ear-coverts blackish slate-colour, the lores and feathers below the eye black; at the base of the cheeks a small white spot; throat white, with triangular spots of black, which form a strongly marked malar line, and impart a streaked appearance to the whole throat; remainder of under surface of body light pearly slate-colour, with a faint tinge of lavender-grey near the sides of the abdomen, which, with the under tail-coverts, is pure white; thighs, axillaries, and under wing-coverts slaty-grey: "bill, eyelids, and feet vermilion-orange; iris reddish brown" (*C. B. Cory*). Total length 10·0 inches, culmen 1·0, wing 5·2, tail 4·2, tarsus 1·5.

Adult female. Similar to the male. Total length 9·4 inches, wing 4·9.

The male described is one collected by Mr. C. B. Cory at Puerto Plata, in San Domingo, on the 2nd of January, 1883, and the female was obtained by the same gentleman at La Vega, in the same island, on the 14th of August, 1883. Both specimens are in the Salvin-Godman Collection. The bird figured is a specimen in the Sclater Collection, obtained in Haiti by Mr. C. B. Cory. [R. B. S.]

MIMOCICHLA ALBIVENTRIS, *Sclater.*

DOMINICA GREY THRUSH.

Mimocichla ardesiaca albiventris, Sclater, P. Z. S. 1889, p. 326; Cory, Cat. West-Indian Birds, p. 157 (1892).
Mimocichla verrillorum, Allen, Auk, viii. pp. 217, 317 (1891); Verrill, Trans. Conn. Acad. viii. p. 33 (1892).
Mimocichla albiventris, Allen, *l. c.*

M. similis *M. ardesiacæ*, sed paullò minor, abdominis albedine magis extensa et pallidè cervino tincta.

The distinctness of the Dominica *Mimocichla* from that inhabiting S. Domingo and Porto Rico was first pointed out by Dr. Sclater in his account of the collections made by Mr. Ramage in the island. Dr. J. A. Allen also came to the same conclusion from an examination of specimens obtained in Dominica by the brothers G. E. & A. H. Verrill, after whom Dr. Allen named the species. Although it is true that Dr. Sclater only looked upon the Dominican *Mimocichla* as a race of *M. ardesiaca*, and in his list of Mr. Ramage's birds actually speaks of it under the latter name, the title of *albiventris* which he applied to the Dominican bird, having priority, must be accepted for it.

M. albiventris is certainly very closely allied to *M. ardesiaca*, but the typical specimens show much more white on the abdomen, as it extends over the lower breast as well; there is also a tinge of buff on the white abdomen, which Dr. Allen did not fail to point out, and the white tips to the tail-feathers are more extended in the Dominica form. A slight appearance of buff on the white abdomen is sometimes to be seen in specimens of *M. ardesiaca*, and the extent of the white on this part of the body also varies in a series of individuals.

Mr. Ramage obtained his two specimens at Batalie, in the dry region on the leeward or western side of the island, in March 1889. Messrs. Verrill met with the species at Lasswa, on the windward or eastern side, where it was very rare and shy. They observe:—"From the testimony of the natives and our own experience, its habitat is mainly confined to that portion of the island, though once or twice its notes were heard near Bass-en-ville. The notes were a shrill plaintive whistle." As the above-named writers remark, this is probably the No. 5 Thrush mentioned by Lawrence in his account of the collections made in Dominica by Mr. F. Ober, as having been "described by several persons, something like the Thrush, but with yellow bill and legs; the nest and eggs being said by the natives to resemble those of the 'Trembleur' (*Cinclocerthia ruficauda*)."

The type-specimen measures:—Total length 9·5 inches, culmen 0·9, wing 4·7, tail 3·9, tarsus 1·5. According to Dr. Allen, there is no difference of any importance in the colour of the sexes; but the female obtained by Messrs. Verrill was slightly smaller than the male, and the abdomen more deeply tinted with yellowish buff: bill, legs, and feet yellow; iris dark brown. [R. B. S.]

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APPENDIX.

VOLUME I.

Page 36. Add:—

GEOCICHLA COMPSONOTA, *Cassin.*

CASSIN'S GROUND-THRUSH.

Geocichla compsonota, Cassin, Pr. Philad. Acad. 1859, p. 42; Seebohm, Cat. Birds Brit. Mus. v. p. 165 (1881).
Chamætylas compsonota, Heine, J. f. O. 1859, p. 425.
Turdus compsonotus, Gray, Hand-l. B. i. p. 260, no. 3799 (1869).

G. similis *G. princei*, sed gutture cinereo nec albo distinguenda.

This species was discovered by Du Chaillu in Gaboon, during his celebrated exploration of Tropical West Africa. It has never been met with since, and Seebohm states, in the 'Catalogue of Birds' (v. p. 165), that the type-specimen in the Philadelphia Academy's Museum appears to have been mislaid. The skulking habits of some of these *Geocichlæ* render them very difficult to procure in the tropical forests which they inhabit; and, as a case in point, I may mention *Geocichla crossleyi*, a perfectly distinct species discovered in the Cameroons Mountains by the late Mr. A. Crossley in 1871, and never since obtained, though Professor Reichenow and Professor Sjöstedt have done their utmost to procure specimens, and the large collections made by the German travellers have never yielded a single example.

We may therefore state that *G. compsonota* is a species of which we should like to see another specimen, since Cassin's original description is somewhat meagre, as Seebohm justly remarks. The latter gentleman thinks that it will be found to be allied to the equally rare *G. crossleyi*, but he places it near *G. princei* in the 'Catalogue.'

Page 40. Add:—

GEOCICHLA KILIMENSIS, *Neumann*.

NEUMANN'S GROUND-THRUSH.

Geocichla gurneyi kilimensis, Neumann, J. f. O. 1900, p. 310.

G. inter *G. gurneyi* et *G. piaggiæ* intermedia, ut videtur, pileo dorsoque olivascentibus paullò rufo lavatis.

Mr. Oscar Neumann considers that the bird from Kilimanjaro is not the true *G. gurneyi* of South-eastern Africa, but requires to be separated as a distinct form. He procured a female specimen at Kifinika, and he says that this is intermediate between *G. gurneyi* and *G. piaggiæ* of Shoa, having the olive colour of the head and back slightly washed with rufous, but the head is not nearly so red as in the figures of *G. piaggiæ* in the 'Catalogue of Birds' or in Seebohm's 'Monograph.' It is also smaller than typical *G. gurneyi*, of which a Pondoland specimen in the Berlin Museum has the wing 98 mm. instead of 112 mm.

The British Museum has a fair series of *G. gurneyi* from Nyasaland, and it is to be noticed that there is a slight wash of russet-colour on the lower back and rump, but some specimens are as olive in colour as typical *G. gurneyi*, so that additional material will be necessary before we can express an opinion on *G. kilimensis* as a distinct race.

Page 46. Add:—

GEOCICHLA AUDACIS, *Hartert*.

KÜHN'S GROUND-THRUSH.

Geocichla audacis, Hartert, Bull. B. O. C. viii. p. xliii (1899).

G. similis *G. peroni*, sed notæo concolore et saturatiore castaneo, præpectore et corporis lateribus saturatioribus, castaneo-rufis, ala breviore, distinguenda.

Mr. Heinrich Kühn, who has done some very successful work in the exploration of the Moluccas, as a naturalist, visited the little-known island of Dammer, in the south of the Banda Sea, in 1898, and among other interesting species of birds he discovered the new Ground-Thrush which has been named after him by Mr. Hartert. It is one of the group of rufous-backed Thrushes peculiar to the Malay Archipelago.

Mr. Hartert describes *G. audacis* (which is the Latin equivalent of "Kühn," a daring personage) as being allied to *G. peroni* of Timor, but with the upper surface more uniform and of a much deeper chestnut-rufous colour, with the chest and sides of the body darker and more chestnut-rufous than in *G. peroni*, and with a shorter wing, measuring no more than 102–104 mm., whereas in *G. peroni* the wing is at least 110 mm. There is no perceptible difference in the colouring of the sexes.

Page 52. Add:—

GEOCICHLA DUMASI, *Rothschild.*

DUMAS' GROUND-THRUSH.

Geocichla dumasi, Rothschild, Bull. B. O. C. viii. p. xxx (1899); Hartert, Nov. Zool. viii. p. 173 (1899).

G. similis *G. dohertyi*, sed pileo dorso concolore, facie laterali haud albo notata: mento, gutture et præpectore nigris distinguenda.

This species was discovered in Buru, one of the Molucca Islands, by Mr. Dumas, who was for some time an assistant of Mr. Alfred Everett, the celebrated Malayan traveller. After the death of the latter gentleman, one of the most devoted servants of science that ever lived, Mr. Dumas visited several of the Moluccan and Papuan Islands, and discovered some remarkable new species of birds, of which the Ground-Thrush of Buru is not the least interesting. It has only been possible in recent years to penetrate to the mountains in the interior of some of the Molucca Islands, and Dr. H. O. Forbes and Mr. Dumas are the only naturalists who have managed to collect in the highlands of Buru. On Mount Mada, at an elevation of 3000 feet, the latter naturalist met with several new species, among them a very distinct form of Pigeon, *Columba mada*.

The discovery of a new Ground-Thrush is, perhaps, the most interesting of Mr. Dumas's achievements in Buru, as *Geocichla dumasi* belongs to a small group of Ground-Thrushes confined to the higher ranges of the mountains in the islands of the Malay Archipelago. Thus *G. dumasi* of Buru is closely allied to *G. dohertyi* of Lombok, but is easily distinguished by the head being coloured like the back, by the absence of white markings on the sides of the face, and by the chin being black like the throat, not white.

The following is Mr. Rothschild's description of the species:—

"*Adult male.* Whole upper surface light olive-rufous brown, with two tufts of creamy-white feathers, one on each side of the rump. Lesser upper wing-coverts like the back; greater upper wing-coverts black, with two rows of large round white spots. Remiges blackish-brown; the outer webs of the primaries with narrow, those of the secondaries with broad, olive-rufous borders. All wing-feathers, except the outer three, with large white patches near the base of the inner webs. Tail like the back, but darker. Whole throat and chest black; abdomen white; flanks olive-yellowish brown; some feathers on the side of the breast olive with black tips, as well as some of the white breast-feathers, thus forming a broken irregular band across the breast. Under tail-coverts creamy-white. Under wing-coverts mixed black and white. Iris dark brown; bill black; feet light. Culmen 23 mm., wing 94, tail 68, tarsus 32."

Page 52. Add:—

GEOCICHLA FRONTALIS, *Madarász.*

MADARÁSZ'S GROUND-THRUSH.

Geocichla frontalis, Madarász, Termes. Füzetek, xxii. p. 111, tabl. viii. (1899).

G. similis *G. dohertyi*, sed pileo postico castaneo dorso concolore, fronte tantum nigra: facie laterali et gutture et præpectore totis nigris, macula alba anteoculari et macula longitudinali paroticali distinguenda.

Dr. von Madarász has described a handsome Ground-Thrush as *Geocichla frontalis*, of which two specimens are in the Hungarian National Museum. They were acquired, with a few more Celebean skins, from a Mr. Simon Markstein, whose father had collected them on the island of Celebes. Unfortunately the exact locality or dates of capture were not mentioned, but it would seem from the picture drawn by Dr. von Madarász that the species is perfectly distinct from any known *Geocichla* of the Malayan Archipelago. As the describer has duly pointed out, it is allied to *G. dohertyi* and *G. erythronota*. From the former it differs in having the black confined to the fore part of the crown, instead of the entire head being black. The throat is entirely black with no white chin, while the white markings on the face are confined to a spot in front of the eye and a streak along the middle of the ear-coverts. There are many striking differences between *G. frontalis* and *G. erythronota*, but the flank-markings and the white band across the upper breast are very similar in both species.

The following is the detailed description given by Dr. von Madarász:—

"*Male.* General colour of the upper parts chestnut-brown, shading into orange-chestnut on the rump and upper tail-coverts; head black, shading into chestnut on the occiput; lores, upper part of malar region, and a large white patch in the centre of the ear-coverts white; chin, throat, and sides of the neck black; the base of the chin-feathers greyish-white; below the throat a white collar; centre of belly and under tail-coverts white; the rest of the underparts white, but the feathers broadly terminated with black, giving the sides of belly a nearly black appearance, whilst the black ends of the flank-feathers become smaller; the white colour of the upper flanks suffused with light ochraceous; scapulars, wing-coverts, primaries, and secondaries—except the first three ones—having greyish-white on the base of their outer web, which extends as a small margin on the 4th, 5th, and 6th primaries, and white on the base of their inner web; under wing-coverts and axillaries black, with white tips; bend of wing white, each feather tipped with black; tail-feathers black, the outer one with a terminal white spot, which is enlarged on the inner web (17 mm.), the next one tipped with white.

"Bill greenish-black and yellowish on the culmen towards the end; feet and claws brownish-yellow in skin.

"Length of wing 114 mm., tail 86, culmen 21, tarsus 32; bastard-primary about as long as the primary-coverts, second primary intermediate between the sixth and seventh; outer tail-feathers 8 mm. shorter than the longest.

"*Female.* Resembles the male, but the general colour of the upper parts paler; the centre of the head and front chestnut instead of black, but the basal half of the feathers jet-black; the black tips of the feathers of the belly smaller and the bend of the wing nearly white."

Page 83. Add :—

GEOCICHLA NÆVIA.

It is proposed by Mr. Richmond (Proc. Biol. Soc. Washington, xv. p. 83, 1902) to restore the name of *Ixoreus* of Bonaparte, 1854, which has precedence over *Hesperocichla*, Baird. The Committee of the A. O. U. sanction this, and recognize two races, *Ixoreus nævius* (Gm.) and *I. nævius meruloides* (Swains.) (*cf.* Auk, xix. p. 331, 1902).

Page 92. Add :—

GEOCICHLA CINEREA, *Bourns & Worcester.*

MINDORO GROUND-THRUSH.

Geocichla cinerea, Bourns & Worcester, Occ. Papers Minnesota Acad. Sci. i. p. 23 (1894).

This species was discovered, during the "Menage" Expedition to the Philippines, in the island of Mindoro. Messrs. Bourns and Worcester were two of the young collectors who formed part of the Steere expedition in 1887–1888, and after their return to America they formed a project of continuing their researches in the Philippine Archipelago, which idea they were able to carry out, through the liberality of Mr. Louis P. Menage, a public-spirited citizen of Minneapolis.

On their second expedition the travellers were able to visit many localities which had not been reached before, and consequently a large number of new species were discovered by them, among them being the present *Geocichla* from Mindoro. Not having seen an example of this bird, which I suppose to be still represented only by the typical specimen at Minneapolis, I am unable to say much about its characteristics, but I believe that it will be found to be most closely allied to *G. schistacea*, Meyer, from the Tenimber Islands.

The following is a copy of the original description given by Messrs. Bourns and Worcester :— "Entire upper surface very dark ashy, almost black. Tail and tips of wing-feathers rusty-brown. Wing-coverts brownish-black, each tipped with a large spot of white, these spots forming two irregular wing-bars. Lores whitish. Spots under eye brownish-black. Chin and centre of throat white. A broad line of brownish-black extends from the gape to the breast, where it joins a large patch of black formed by feathers, the bases of which are white. Rest of under surface white, the feathers of sides of breast and flanks with narrow black tips. Centre of lower breast and abdomen as well as under tail-coverts unspotted. A slight tawny wash on flanks. Axillaries white tipped with ashy grey. Under wing-coverts ashy grey tipped with white. A prominent spot of white on inner web of each secondary, the spots together forming a patch. Bend of wing white. Wing 4·40 inches, tail 2·86, culmen 0·91, tarsus 0·98."

Page 104. Add:—

GEOCICHLA STIERLINGI, *Reichenow.*

STIERLING'S GROUND-THRUSH.

Geocichla litsitsirupa stierlingi, Reichenow, Orn. MB. viii. p. 5 (1900).

G. similis *G. litsitsirupæ*, sed pectore rufescenti-flavo lavato, et subalaribus saturatius cinnamomeis distinguenda.

This is a form of *G. litsitsirupa*, which inhabits South Africa below the Zambesi, and the occurrence of *G. stierlingi* at Iringa in Uhehe, German East Africa, is interesting enough, though it does not seem to be a very distinct species. It is distinguished from the typical *G. litsitsirupa* by its shorter bill, by its breast being more strongly washed with yellowish-red, and by the darker tone of the yellowish-red under wing-coverts. The bill is black, with the lower mandible yellowish at the base and blackish at the tip; the feet yellowish-red.

Page 130. Add —

TURDUS COBURNI, *Sharpe.*

ICELAND REDWING.

Turdus coburni, Sharpe, Bull. B. O. C. xii. p. 28 (1901).
Turdus iliacus coburni, Haase, Orn. MB. x. p. 79 (1902).

T. similis *T. iliaco*, sed suprà pallidè grisescens, striolis pectoralibus pallidè griseis, minimè nigris, et hypochondriis pallidè cinnamomeis, minimè ferrugineis, distinguendus.

Mr. F. Coburn, a well-known naturalist of Birmingham, visited the north of Iceland in 1899, and found there nesting many interesting species of birds, such as the American Wigeon (*Mareca americana*). Amongst others he procured three specimens of a Redwing which differed so much in the pale colour of the breast-stripes and the pale cinnamon flanks, that I have described them as a distinct species. Whether this Redwing is resident in Iceland all the year, or whether it migrates, we have as yet no information, but it is probably the species which nests in the Faroes, as recorded by Mr. Knud Andersen, near Thörshavn (Orn. MB. p. 79). Dr. Haase (*l. c.*) has drawn attention to the migratory habits of *Turdus iliacus* in the Faroes, and has given some interesting notes on the subject (*t. c.* pp. 79, 80).

Page 146. Add:—

TURDUS DEICHLERI, *Erlanger*.

Turdus viscivorus deichleri, Erlanger, Orn. MB. v. p. 192 (1897).
Turdus viscivorus, Erlanger, J. f. O. 1899, p. 248.

Baron Erlanger separated the Mistle-Thrush from Tunis as a distinct pale race; but he has more recently come to the conclusion that it is not to be separated from *T. viscivorus*, though it is very pale in coloration.

HYLOCICHLA.

The Dwarf Thrushes of America are considered by Mr. Oberholser to constitute a genus distinct from *Turdus* (which should be restricted to the Old World), on account of their longer tarsus and more depressed bill. They should be placed under Baird's genus *Hylocichla*, and the A. O. U. endorses this view (*cf.* Auk, xix. p. 330).

Page 195. Add:—

TURDUS VERECUNDUS (*Osgood*).

Hylocichla aonalaschkæ verecunda, Osgood, Auk, 1901, p. 183.

Mr. Osgood proposed to separate the Hermit-Thrush from the coast of British Columbia and S.E. Alaska from true *T. aonalaschkæ*. The Committee of the A. O. U., however, have decided that it is not distinguishable (*cf.* Auk, xix. p. 337).

Page 195. Add:—

TURDUS SLEVINI (*Grinnell*).

Hylocichla aonalaschkæ slevini, Grinnell, Auk, 1901, p. 258.

This race, from Monterey, has been separated by Mr. Grinnell, who is also inclined to allow *T. verecundus* and *T. sequoiensis* to be recognizable races. The A. O. U. has not yet pronounced judgment on this form (Auk, xix. p. 342).

Page 178. Add:—

TURDUS ALMÆ (*Oberholser*).

Hylocichla ustulata almæ, Oberholser, Auk, xv. p. 304 (1898).

This supposed race of *T. ustulatus* is described from the Rocky Mountains, and is said to be similar to *T. swainsoni*, but differing in the more ashy colour of the back and flanks. It was not allowed by the Committee of the A. O. U. (*cf.* Auk, xvi. p. 131, 1899), but is admitted as a subspecies in the 10th Supplement to the 'Check-list' (Auk, xviii. p. 309, 1901).

Page 178. Add:—

TURDUS ŒDICUS (*Oberholser*).

Hylocichla ustulata œdica, Oberholser, Auk, xvi. p. 23 (1899).

This race proposed by Mr. Oberholser is admitted by the A. O. U. (*cf.* 9th Supplement to the Check-list of N. A. Birds: Auk, xvi. p. 127, 1899). It is said to inhabit California, except the northern coast; north in the interior to Southern Oregon, south in winter to Arizona and Western Mexico.

"This new race," writes Mr. Oberholser, "most closely resembles *Hylocichla ustulata swainsoni* from the eastern part of North America: so closely, in fact, that it has not unfrequently been identified as such; but all records of *H. swainsoni* from California belong undoubtedly under the present form. It differs from *H. swainsoni* in its more rufescent coloration on the flanks, sides, and upper surface, this being most noticeable on the tail and superior tail-coverts. The same characters, though much more pronounced, distinguish it from *Hylocichla ustulata almæ*. It is usually paler than *H. ustulata*, and has very much less of the rufous tinge to the upper surface, including both wings and tail; the sides and flanks are more greyish; the buff of the jugulum somewhat paler. Although most of these characters are not entirely constant, typical specimens may without difficulty be discriminated. There seems to be no material difference in size between any of the forms of *Hylocichla ustulata*.

"Breeding specimens from Fort Klamath, Oregon, are not typical *H. œdica*, but are nearer this form than *H. ustulata*. Birds from the northern part of the Californian coast, at least as far south as Mexico, are intermediate, and rather difficult satisfactorily to place, but they seem to be, on the whole, nearer to *H. ustulata* than to *H. œdica*."

Page 193. Add:—

TURDUS AONALASCHKÆ.

In the 11th Supplement to the A. O. U. Check-list (Auk, xix. p. 330), the Committee remark that *Turdus aonalaschkæ*, Gmelin (S. N. p. 808, 1788), is based on a young bird, and is unidentifiable. *Muscicapa guttata*, Pall., is readily determinable, and has a definite type-locality. The Committee therefore recommend the name of *Hylocichla guttata* (Pall.) for the species.

Page 153. Add:—

TURDUS FULIGINOSUS (*Howe*).

Hylocichla fuscescens fuliginosa, Howe, Auk, xvii. p. 270 (1900).

This race of *T. fuscescens* is described from Newfoundland, and is said to differ both from the last-named form and from *T. salicicola*. The Committee of the American Ornithologists' Union have, however, decided that it is not to be separated from the latter (*cf.* Auk, xviii. p 314).

Page 214. Add:—

TURDUS MINUSCULUS (*Bangs*).

Merula phæopyga minuscula, Bangs, Pr. Biol. Soc. Washington, xii. p. 181.

This form of *Turdus phæopygus* has been described by Mr. Outram Bangs from a specimen procured by Mr. W. W. Brown at Pueblo Viejo, in Colombia, at an altitude of 8000 feet. He says.—"Although very like true *Merula phæopyga*, the bird of the Santa Marta Mountains is slightly smaller, and of a darker, more olive-brown above, so that I no longer have any hesitation in regarding it as a fairly marked subspecies. It is much more closely related to true *M. phæopyga* than any other races of that Thrush.

"Mr. Brown, though in the mountains during the breeding-season, took but three examples of *M. phæopyga minuscula*, and reports it a rare bird. As it is a remarkable singer, it is not likely that he passed many males unnoticed at that season."

Mr. Bangs describes this race as being "smaller than true *M. phæopyga* of British Guiana; wing shorter; colour of back and crown darker (olive in *M. phæopyga minuscula*, bistre in *M. phæopyga phæopyga*)."

This form is also noticed by Dr. Hellmayr (J. f. O. 1902, pp. 63), where some excellent critical notes are given on *Turdus phæopygus* and its allies, *T. spodiolæmus*, *T. minusculus*, and *T. phæopygoides*.

Page 228. Add:—

TURDUS CONTEMPTUS, *Hellmayr*.

Turdus crotopezus contemptus, Hellmayr, J. f. O. 1902, p. 61.

Dr. Hellmayr separates the Bolivian form of *Turdus crotopezus* as a distinct subspecies, on account of its larger size, broader and longer bastard-primary, more reddish upper surface (not so olive-brown), and the purer colour of the under surface. In the Museum series from Bahia are some individuals which appear to be intermediate, and I do not think the characters for the Bolivian race are very well marked.

Page 239. Add:—

TURDUS MACULIROSTRIS.

Dr. Hellmayr gives a review of this species and its allies, *T. ignobilis*, &c. (J. f. O. 1902, pp. 53–70). He considers *T. maculirostris* to be a good species, which never gets an entirely yellow bill, and is found in Western Ecuador. In the British Museum we have this form from Pallatanga and the Balzar Mountains.

Page 241. Add:—

TURDUS IGNOBILIS.

T. ignobilis is considered by Dr. Hellmayr to belong to a distinct group from *T. maculirostris*, which rather inclines towards *T. gymnophthalmus* as its natural ally. Of *T. ignobilis* he recognizes four races, which after the manner of present-day nomenclaturists, he indicates as follows:—

1. *T. ignobilis ignobilis.* Bogota.
2. *T. ignobilis goodfellowi.* Cauca Valley, Colombia, Castilla.
3. *T. ignobilis debilis.* E. Ecuador, Peru, and W. Brazil.
4. *T. ignobilis murinus.* Guiana.

The true *T. ignobilis* we have from Bogota and Antioquia. *T. goodfellowi*, Hart. & Hellm., does not appear to be in the Museum Collection. *T. debilis* of Hellmayr we have from Xeberos, Yquitos, and the Lower Ucayali in Upper Amazonia, Guayabamba and Chirimoto in Peru, Sarayacu and Zamora in Ecuador.

The bird from Mapiri in Bolivia mentioned above (I. p. 240) has an entirely yellow bill, as stated by me, and it is certainly not *T. leucomelas*, as Dr. Hellmayr suggests. It may belong to a yellow-billed species, but the colouring recalls *T. debilis* and *T. ignobilis*.

Page 254. Add:—

TURDUS COLOMBIANUS, *Hartert & Hellmayr.*

Turdus columbianus, Hartert & Hellm. Nov. Zool. viii. p. 492 (1901).

This species is said by the authors to be "nearly allied to *T. nigrirostris*, Lawr., from the West Indies, but differs in its smaller size, slender bill, and in the more rufous colour of the back." They add:—"It is perhaps of no more than subspecific value, but as long as we are not acquainted with intermediate specimens, *T. columbianus* may stand as a species. Hellmayr has compared the type with specimens of *T. obsoletus*, killed in April, September, and October. The example obtained by Mr. Stolzmann at Chimbo, N. Ecuador (cf. *T. obsoletus*, Tacz. & Berl. P. Z. S. 1883, p. 539; 1885, p. 122), apparently belongs also to this new species."

The type-specimen was obtained at Cali, Cauca Valley, Western Colombia, by Mr. W. F. H. Rosenberg.

Page 260. Add:—

TURDUS FUSUS (*Bangs*).

Merula albiventris fusa, Bangs, Pr. Biol. Soc. Washington, xiii. p. 107 (1899).

Mr. Outram Bangs has described this race from the Sierra Nevada of Santa Marta. He received a series of fourteen specimens from Mr. W. W. Brown, who obtained them at Chirua, La Concepcion, San Miguel, and San Francisco, in the above-named range of mountains, at a height of 7000 feet.

We have no specimens from Santa Marta in the British Museum, so I have not been able to compare the two forms, but Mr. Bangs gives the following characters for his new subspecies:—"Much larger than true *M. albiventris*, Spix, of Brazil; colors and pattern of coloration similar, except that the head is grayer—shading from grayish olive on forehead and crown to olive-gray on cervix, where the gray meets the olive of the back much more abruptly; bill dull green; iris brown."

Page 261.

TURDUS GRAYI.

Dr. Hellmayr (J. f. O. 1902, pp. 44–69) gives a review of the forms of *Turdus grayi*, and he once more separates the species into three races, reinstating *T. tamaulipensis*, Nelson, and *T. luridus*, Bp. I still think that all the differences of plumage, which are very slight, can be accounted for on the score of age and season.

Page 284. Add:—

TURDUS ACHRASTERUS (*Batchelder*).

Merula migratoria achrastera, Batchelder, Pr. N. Engl. Zool. Club, i. p. 104 (1900).

The Migratory Thrush from the Carolinas and Georgia has been separated by Mr. Batchelder, and is allowed to stand as a distinct race by the American Ornithologists' Union (*cf.* Auk, xviii. p. 309, 1901).

Page 304. Add:—

TURDUS CONRADI, *Salvad. & Festa.*

FESTA'S THRUSH.

Turdus conradi, Salvad. & Festa, Boll. Mus. Torino, xiv. no. 357, p. 4 (1899).

T. similis *T. chiguanco*, sed minor et pallidior.

Dr. Festa, during his expedition to Ecuador, procured two adults and one young bird of a Thrush which Count Salvadori, after confirmation from Count Von Berlepsch, has decided to be distinct from the true *T. chiguanco* of Lafresnaye and D'Orbigny.

I have re-examined our series of *T. chiguanco* in the Museum Collection, fourteen in all, and I find great variation in the depth of colour in specimens, and, so far as I can see, these differences are indicative of breeding and winter livery. The worn-plumaged and paler individuals are those procured from January to May, which is apparently the breeding-season, while those obtained between June and September are in much better plumage and evidently not breeding. I have no doubt myself that this Thrush has a seasonal plumage, the newly-moulted birds being darker and not so grey. The darkest of all is the bird from Tilotilo in Bolivia, which must be separated as a race, if my surmise as to the identity of *T. conradi* and *T. chiguanco* should prove to be wrong: it is at least as distinct as the Peruvian and Ecuador forms, and the white shaft-streaks on the under tail-coverts are reduced to a line. This, however, is a very variable character, and the size of the bill varies greatly throughout the series.

As to the larger dimensions supposed to characterize *T. conradi*, it will be seen from the measurements of the wing given below that, although the Ecuadorian birds are slightly larger as a rule, their dimensions are approached by birds from other localities.

1. ♂, Riobamba (5·6). 2. ♂, Cuenca (5·4). 3. Ecuador, *Fraser* (4·9). 4. ♂, Caras, Ecuador, *Simons* (5·2). 5. ♂, Caras (5·6). 6. ♀, Riobamba, *Simons* (5·5). 7. ♂, Cañar, *Simons* (5·7). 8. ♀, Islay (4·7). 9. ♀, Islay (5·15). 10. ♂, Islay (5·0). 11. Arequipa (5·5). 12. ♀, Arequipa (5·2). 13. ♂, Catarindo Valley, Peru (4·7). 14. ♂, Cajamarca (5·2). 15. ♂, Cajamarca (5·4). 16. Tilotilo, Bolivia (5·4). 17. ♀, Tarapaca (5·0).

Page 319.

TURDUS LIBONYANUS.

Dr. Hellmayr (J. f. O. 1902, pp. 207–221) has given a review of *T. libonyanus* and its allies.

VOLUME II.

Page 12. Add :—

MERULA CABRERÆ (*Hartert*).

Turdus merula cabreræ, Hartert, Nov. Zool. 1901, p. 313.

Mr. Hartert, in his Journal 'Aus den Wanderjähren eines Naturforschers' (p. 92), calls attention to the smaller size of the Blackbird of the Canary Islands, which he considers to be a distinguishable race of our Common Blackbird. The wings are shorter than in *Merula merula* (128–129 mm. instead of 136). The bill is rather larger and of a deep orange-red. The female is very dark in coloration.

Page 56. Add :—

MERULA AMŒNA (*Hellmayr*).

Turdus fuscater amœnus, Hellm. J. f. O. 1902, p. 58.

In the article on *Merula fuscatra* I called attention to the blacker plumage and longer bill of some of the birds from Mendoza. Dr. Hellmayr has now given a name to this long-billed form.

Page 58. Add:—

MERULA PALLIDIVENTRIS (*Berlepsch*).

MERIDA GIANT OUZEL.

Turdus gigas pallidiventris, Berlepsch, Orn. MB. x. p. 71 (1902).

Count von Berlepsch has lately separated the Giant Ouzel from Merida in Venezuela from the true *M. gigas* of Colombia and Ecuador. I have already alluded to the two specimens from Merida in the Museum Collection, but I had not ventured to separate them from *M. gigas*, as neither of them were quite mature. On comparing them again with the large series of the last-named species, I am able to confirm Count von Berlepsch's diagnosis of the Merida race, though the characters are very slight for its separation. The under surface of the body in *M. pallidiventris* is rather paler and more of a clear ashy-grey. The upper surface is somewhat lighter also, and in one specimen there is a decided wash of ochre on the under wing-coverts, though this is scarcely at all developed in the second example, which has a wash of ochre on the breast. The describer of the species is so good an observer, that it is possible that the differences are more accentuated in adult birds, of which we have none as yet in the Museum.

The variations of *M. gigas* are not at all well understood, and it is quite possible that there are still some races to be described; but until we know more about the moults and the differences of plumage at different seasons of the year, it seems to me premature to describe the forms as distinct.

Page 100. Add:—

MERULA MELANARIA, *Madarász*.

Merula melanaria, Madarász, Orn. MB. viii. p. 23 (1900).

This supposed species from the Astrolabe Mountains, in British New Guinea, has been described by Dr. von Madarász as allied to *M. mareensis* (Layard & Tristr.). I consider that it will, in all probability, be found to be identical with *M. papuensis*.

ADDENDA.

Vol. I. page 33. Add:—

GEOCICHLA FISCHERI (*Hellmayr*).

FISCHER'S GROUND-THRUSH.

Turdus guttatus fischeri, Hellmayr, Orn. MB. ix. pp. 53, 54 (1901).

Dr. Hellmayr has separated the Ground-Thrush from the Pangani River from *G. guttata* of Natal, on account of its smaller size and the more feeble spotting of the under surface. I have not seen a specimen from this part of Africa.

Vol. I. page 114. Add:—

TURDUS XANTHORHYNCHUS, *Salvad.*

PRINCE'S ISLAND THRUSH.

Turdus xanthorhynchus, Salvad. Boll. Mus. Zool. Torino, xvi. no. 414, p. 2 (1901).

This species has been discovered by Signor Leonardo Fea on Prince's Island, in the Bight of Benin. Count Salvadori says that it is allied to *T. olivaceofuscus* of St. Thomas, but is smaller, has the bill yellow and the feet pale, with broader dusky margins to the feathers of the under surface. The transverse præpectoral band is not uniform, but is composed of feathers having broad white centres and dusky margins.

According to Signor Fea, this Thrush was rare on Prince's Island, and was only found on the western coast.

Vol. II. App. page 228. Add:—

GEOCICHLA AUDACIS.

Dr. Otto Finsch (Notes Leyden Mus. xxii. p. 263) considers that this species is not distinct from *G. peroni*.

Vol. I. page 248. Add:—

TURDUS DIFFERENS (*Nelson*).

CHIAPAS THRUSH.

Merula plebeia differens, Nelson, Proc. Biol. Soc. xiv. p. 175 (1901).

Mr. Nelson separates the *Turdus plebeius* of Chiapas as a distinct race, recognizable by being browner above, with the lower parts darker brown and more uniform, and with the throat uniform with the breast and having scarcely a trace of dark streaks. The bill and feet are also said to be darker. In the British Museum there are four specimens from Chiapas, and I cannot find any sufficient reason to separate them from Nicaraguan examples, which also show the characters put forward by Mr. Seebohm.

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ASSISTANT-KEEPER, SUB-DEPARTMENT OF VERTEBRATA, BRITISH MUSEUM.

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„ JAVANICA.
„ VITIENSIS, M. LAYARDI, ♀.
„ „ „ ♂.
„ VINITINCTA.
„ XANTHOPUS.
MERULA MINDORENSIS.
„ CARDIS.
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„ AURANTIA.
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1901

PROSPECTUS.

THE late Mr. HENRY SEEBOHM may be said to have devoted a period of twenty years to the study of the Thrushes, a family of Birds in which he took a great interest, ever since the publication in 1881 of the fifth volume of the 'Catalogue of Birds,' of which he was the Author.

He possessed an unusually fine collection of Thrushes, which he has bequeathed, with the rest of his Collection, to the British Museum, and at the time of his death the MSS. of the 'MONOGRAPH OF THE TURDIDÆ,' which he contemplated publishing, had been begun and nearly all the plates were coloured.

The Publishers having acquired the whole stock of the work, have secured the co-operation of Mr. SEEBOHM'S old friend, Dr. BOWDLER SHARPE, who was his constant companion during the preparation of the 'Monograph.' He will therefore be able to superintend the publication of the work on the lines intended by its late author.

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PUBLISHERS' NOTE.

MESSRS. H. SOTHERAN & Co. have great pleasure in issuing these the final Parts of the HISTORY OF THE THRUSHES. That it should have taken a longer time to do so than was foreshadowed in the original Prospectus they cannot but regret, though it was owing to causes over which they had no control. Neither the Plates nor Text proved to be as perfect or complete as they believed when beginning the publication, and moreover a number of new species have since been discovered and have been either figured or described, thus increasing the Editor's labour as well as their own expenditure.

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